SHARP®

VCR/DVD COMBINATION
錄影機/DVD影碟機 二合一

MODEL
型號

DV-NC60W
DV-NC60

香港電器安全規格
（國際電工委員會規格適合）

OPERATION MANUAL
使用說明書





ENGLISH ..... GB 1 – GB 105
中　　文 ..... C 1 – C 105

The region number for this Unit is **3**.
本機的區域代碼為 3。

VHS HQ HIGH QUALITY G-CODE
PAL NTSC

DVD VIDEO　VIDEO CD　COMPACT disc DIGITAL VIDEO　COMPACT disc DIGITAL AUDIO　NTSC/PAL　DOLBY DIGITAL　dts DIGITAL OUT　QSURROUND™

About This Manual

- All mentions of “the Unit” refer to the DV-NC60W or DV-NC60 VCR/DVD COMBINATION.
- All mentions of “the Remote” refer to the remote control unit.
- The following table describes the icons used in this Operation Manual.

Icon	Meaning
	Tips and Hints for easier operation
	Functions for DVD
	Functions for VIDEO CD
	Functions for Audio CD
	GENERAL INFORMATION
	CONNECTION AND INITIAL SETTING
	VCR, DVD SETUP
	WATCHING THE VCR, DVD
	OTHER INFORMATION

Important!

Be sure to read this Operation Manual carefully before using the Unit for the first time, and keep it on hand for future reference when you experience operational problems.

SAFETY INFORMATION

Note:
This unit can be used only where the power supply is AC 110V-240V, 50/60Hz. It cannot be used elsewhere.

CAUTION:

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

AS THE LASER BEAM USED IN THIS UNIT IS HARMFUL TO THE EYES, DO NOT ATTEMPT TO DISASSEMBLE THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

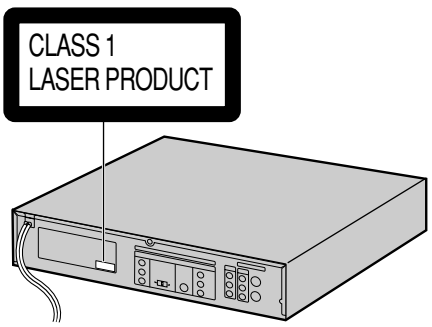
Laser Diode Properties
Material: AlGaInP
Wave length: 650 nm
Emission Duration: Continuous
Laser output: Max. 0.7 mW

Power Cord Protection

To avoid any malfunctions of the unit, and to protect against electric shock, fire or personal injury, please observe the following.

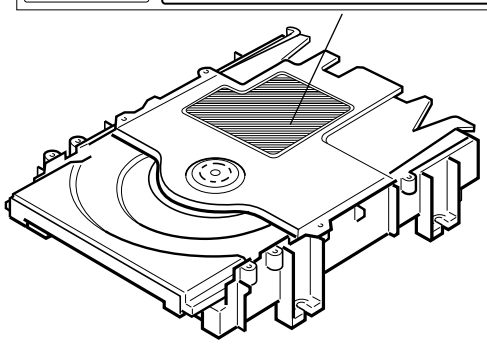
- Hold the plug firmly when connecting or disconnecting the AC power cord.
- Keep the AC power cord away from heating appliances.
- Never put any heavy object on the AC power cord.
- Do not attempt to repair or reconstruct the AC power cord in any way.

- This Unit is classified as a CLASS 1 LASER product.
- The CLASS 1 LASER PRODUCT label is located on the rear cover.
- This product contains a low power laser device. To ensure continued safety do not remove any cover or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.



(Rear of product)





SAFETY INFORMATION

Location and Handling

- Do not place your Unit in closed spaces or do not cover it to prevent excessive temperatures inside the Unit.
- Do not place the Unit in direct sunlight, or near heat sources.
- Keep the Unit away from strong magnetic objects.
- Do not place any object containing water or other liquids on the Unit. In the event that liquid should enter the cabinet, unplug the Unit immediately and contact the retailer or service centre approved by SHARP immediately.
- Do not remove the Unit cabinet. Touching parts inside the cabinet could result in electric shock and/or damage to the Unit. For service and adjustment inside the cabinet, call a qualified dealer or service centre approved by SHARP.

Nonuse Periods

When the Unit is not being used, switch the Unit to the standby mode.
When left unused for a long period of time, the Unit should be unplugged from the household AC outlet.

No Fingers or Other Objects Inside

Do not put any foreign object on the disc tray.

Stacking

Place the Unit in a horizontal position, and do not place anything heavy on it.

Condensation

Moisture may form on the pickup lens in the following conditions:

- immediately after a heater has been turned on.
- in a steamy or very humid room.
- when the Unit is suddenly moved from a cold environment to a warm one.

If moisture forms inside this Unit, it may not operate properly.
In this case, turn on the power and wait about one hour for the moisture to evaporate.

Cleaning

Unplug your Unit before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluids or aerosols which could enter the Unit and cause damage, fire, or electrical shock. These substances may also deteriorate the finish of your Unit.

If There is Noise Interference on the TV While a Broadcast is being Received

Depending on the reception condition of the TV, interference may appear on the TV monitor while you watch a TV broadcast and the Unit is left on. This is not a malfunction of the Unit or the TV. To watch a TV broadcast, turn off the Unit.

Service

Do not attempt to service this Unit yourself. Please refer any service to the nearest service centre approved by SHARP.

Copyright

Audio-visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright. Please refer to relevant laws in your country.

Copy Protection

This Unit supports Macrovision copy protection.
On DVDs that include a copy protection code, if the contents of the DVD are copied using a VCR, the copy protection code prevents the videotape copy from playing normally.

Apparatus Claims of U.S.Patent Nos. 4,631,603, 4,577,216, 4,819,098 and 4,907,093 licensed for limited viewing uses only.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Recommended Measures for Optimum Picture Excellence

The Unit is a precision device that is constructed using extremely accurate technology.
Soiling or friction affecting the pickup lens or disc drive can impair the image quality. At the worst, neither video nor audio will be played back. To obtain optimum picture quality, the Unit should be checked (cleaning and replacement of some parts) every 1,000 hours. Note that this period varies depending on the environment (temperature, humidity, dust, etc.) in which the Unit is used. Contact your authorized Sharp supplier for details.

Do not attempt to clean the pickup lens yourself.

Types of Discs that Can Be Played on This Unit

This Unit can play back discs bearing any of the following marks:

DVD VIDEO	DVD [8cm(3") disc/12cm(5") disc]	See NOTE ➤ 1 See NOTE ➤ 2 on the next page
COMPACT disc DIGITAL VIDEO VIDEO CD	VIDEO CDs [8cm(3") disc/12cm(5") disc]	• Supports until version 2.0.
COMPACT disc DIGITAL AUDIO	Audio CDs [8cm(3") disc/12cm(5") disc]	See NOTE ➤ 3 on the next page
	CD-R/CD-RW [8cm(3") disc/12cm(5") disc]	• Discs recorded in MP3 file format or Audio format.

Other CDs
1) On CD-G and CD-EXTRA discs, only the sound can be played (no images).
2) Photo CD, DVD-ROM, DVD-R, DVD-RW, DVD-Audio, SACD and CD-ROM discs cannot be used.
3) Discs with unusual shapes (heart-shaped or hexagonal discs) cannot be used. The use of such discs will cause a fault.
   • This Unit will reject an incompatible disc, therefore the disc type should be checked.

NOTE ➤ 1

- DVD video players and discs are designed with region numbers which dictate the regions in which a disc can be played. If the region number on the disc you want to play does not match the region number in this Unit, you will not be able to play the disc.

The region number for this Unit is *3*.

Samples of region number marks compatible with this Unit:



Disc playable in all regions

As for the list of the region number 3 countries and the world map for all region numbers, refer to pages 103 and 104.

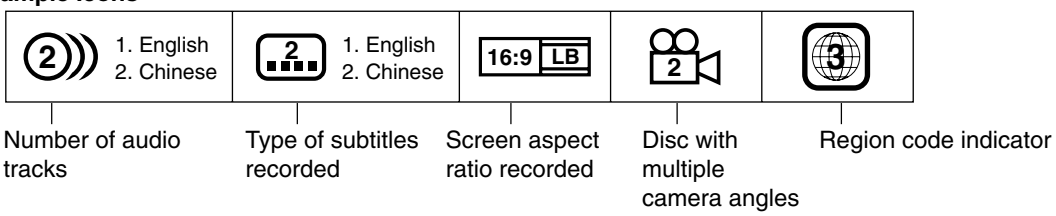
Disc Function or Operation that is Not Available

In the cases listed below, the or indicator may appear on the TV screen, which indicates that the function or operation is not available.

- When you intend to perform the function or operation on which the manufacturer restriction is imposed:
  The specific functions on some DVDs and VIDEO CDs are determined by the disc manufacturer. As this Unit plays disc data in accordance with the guidelines of the disc manufacturer, some functions may not be available on some discs. Be sure to read the documentation provided with the disc.
- When you intend to perform the functions or operations prohibited for the current disc:
  The types of functions and operations that can be used for a particular disc vary depending on the features of that disc. Some disc functions and operations may differ from the descriptions given in this Operation Manual. In this event, follow the instructions given on the screen.

Icons Used on DVDs

Sample Icons



NOTE ➤ 2

- This Unit supports 2-channel (L/R) audio and 5.1ch (Multi-channel) MPEG Audio 1/2 (only when the DIGITAL OUT coaxial jack is used for connection). It does not support 7.1 channel MPEG Audio Version 2.0.

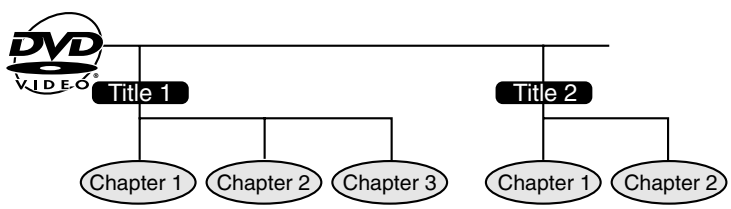
NOTE ➤ 3

- When playing back a CD-G (Graphics) or CD EXTRA disc, the audio portion will be played, but the graphic images will not be shown.

Title, Chapter and Tracks

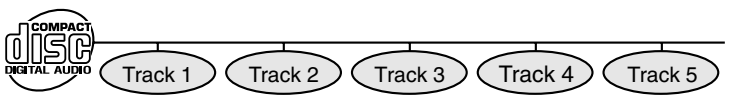
- DVDs are divided into “titles” and “chapters”. If the disc has more than one movie on it, each movie would be a separate “title”. “Chapters”, on the other hand, are sections of titles.

Example: DVD



- VIDEO CDs and Audio CDs are divided into “tracks”. You can think of a “track” as one tune on an Audio CD.

Example: VIDEO CD or Audio CD



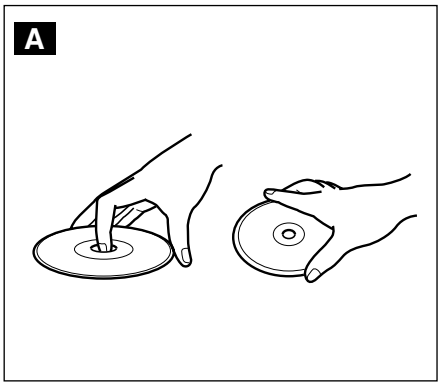
NOTE ➤

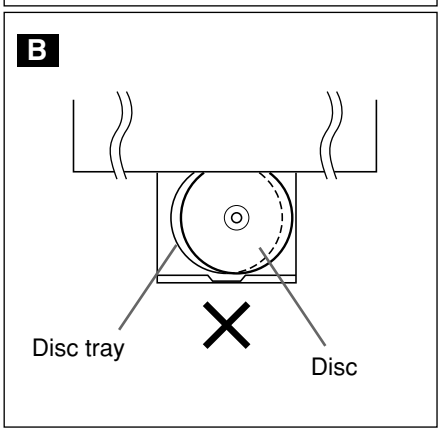
- Numbers identify each title, chapter, and track on a disc. Most discs have these numbers recorded on them, but some do not.

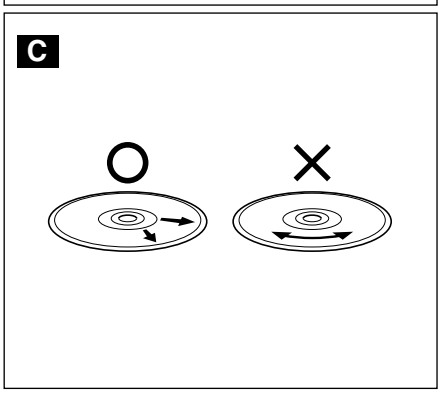
Disc Handling and Maintenance

Handling Precautions

- Hold the disc by the edges so the surface will not be soiled with fingerprints. (A)
  Fingerprints, dirt and scratches can cause skipping and distortion.
- Do not write on the label side with a ball-point pen or other writing utensils.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Be careful not to drop or bend the disc.
- Do not install more than 1 disc on the disc tray.
- Do not try to close the disc tray when the disc is not installed properly. (B)
- Be sure to store the disc in its exclusive case when not in use. Then store upright.
- Do not stick paper or adhesive labels to the disc.







If the Surface is Soiled (C)

Wipe gently with a soft, damp (water only) cloth.
When wiping discs, always move the cloth from the center hole toward the outer edge.
(If you wipe the discs using a circular motion, circular scratches are likely to occur, which will cause noise.)

> If the playing surface of a disc is soiled or scratched, the Unit may decide that the disc is incompatible and eject the disc tray, or it may fail to play the disc correctly. Wipe any soiling off the playing surface with a soft cloth.

If the Disc is Brought from a Cold to a Warm Environment, Dew May Form on the Disc

Wipe the dew off with a soft, dry, lint-free cloth before using the disc.

Improper Disc Storage

You can damage discs if you store them in the following places:
- Areas exposed to direct sunlight
- Humid or dusty areas
- Areas directly exposed to a heat outlet or heating appliance

Maintenance

- Be sure to turn the Unit off and disconnect the AC power cord before maintaining the Unit.
- Wipe this Unit with a dry soft cloth.
  If the surfaces are extremely dirty, wipe clean with a cloth which has been dipped in a weak soap-and-water solution and wrung out thoroughly and then wipe again with a dry cloth.
- Never use alcohol, benzine, thinner, cleaning fluid or other chemicals. And do not use compressed air to remove dust.

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Features

■ Common Features

- A DVD, AUDIO CD, VIDEO CD player and VCR all in one.
- Simultaneous VCR recording and DVD playback.

■ VCR

- VHS Hi-Fi Stereo Sound, NICAM/IGR System
- 400-times High Speed Rewind Function (in NTSC)
- S-VHS Simple Playback
- HQ (High Quality) Circuitry
- Simple Recording Timer
- Sharp Super Picture
- G-CODE System*

* For Hong Kong/Thailand: G-CODE is a registered trademark of Gemstar Development Corporation. The G-CODE system is manufactured under license from Gemstar Development Corporation.
For Singapore: G-CODE is a trademark of Gemstar Development Corporation. The G-CODE system is manufactured under license from Gemstar Development Corporation.

■ DVD

- Plays DVD, VIDEO CD and Audio CD discs as well as CD-R/CD-RW discs recorded in MP3 file format
- Virtual Dolby Surround (QSURROUND*1) provides high-quality surround sound
- Digital Gamma correction and Digital Super Picture functions
- Dolby Digital*2, DTS*3, MPEG Audio digital out capability
- High-quality digital images
- High-quality digital sound

*1 QSURROUND™ is a trademark of QSound Labs, Inc.
*2 Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic” and the double-D symbol are trademarks of Dolby Laboratories.
*3 “DTS” and “DTS Digital Surround” are trademarks of Digital Theater Systems, Inc.

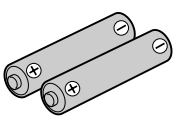
Disc Features and this Operation Manual

- The types of functions and operations that can be used for a particular disc vary depending on the features of that disc. In some cases, these functions and operations may differ from the descriptions given in this Operation Manual. In this event, follow the instructions given on the screen. This Operation Manual only covers basic disc operations.
- **For some operations, the or indicator may appear on the TV screen. This indicates that the operation described in this Operation Manual is not permitted for the current disc.**

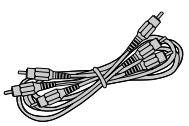
Accessories



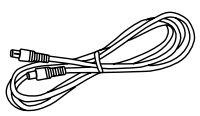
Remote control unit



Two batteries
(AA, R6 or UM/SUM-3)
for the Remote



VIDEO/AUDIO cable



RF cable

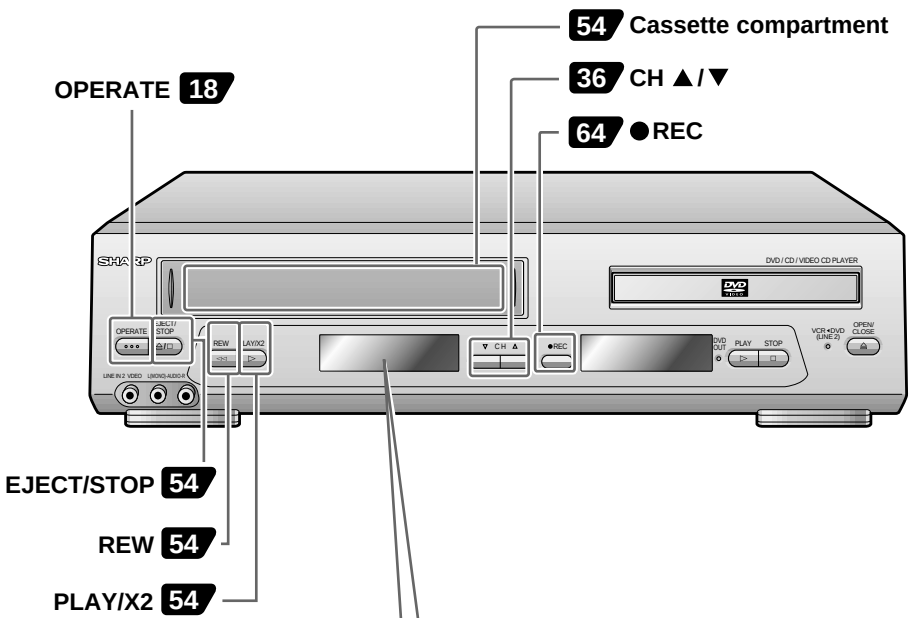


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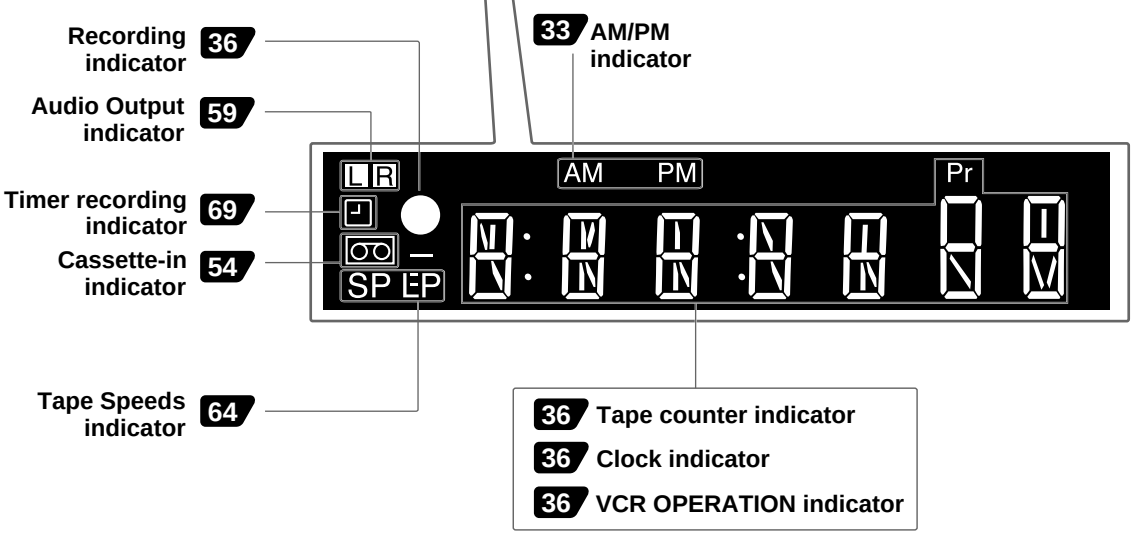
Major Components

VCR Main Unit (Front)

Numbers in ▰ refer to the main pages
in this Operation Manual where the topic is explained.

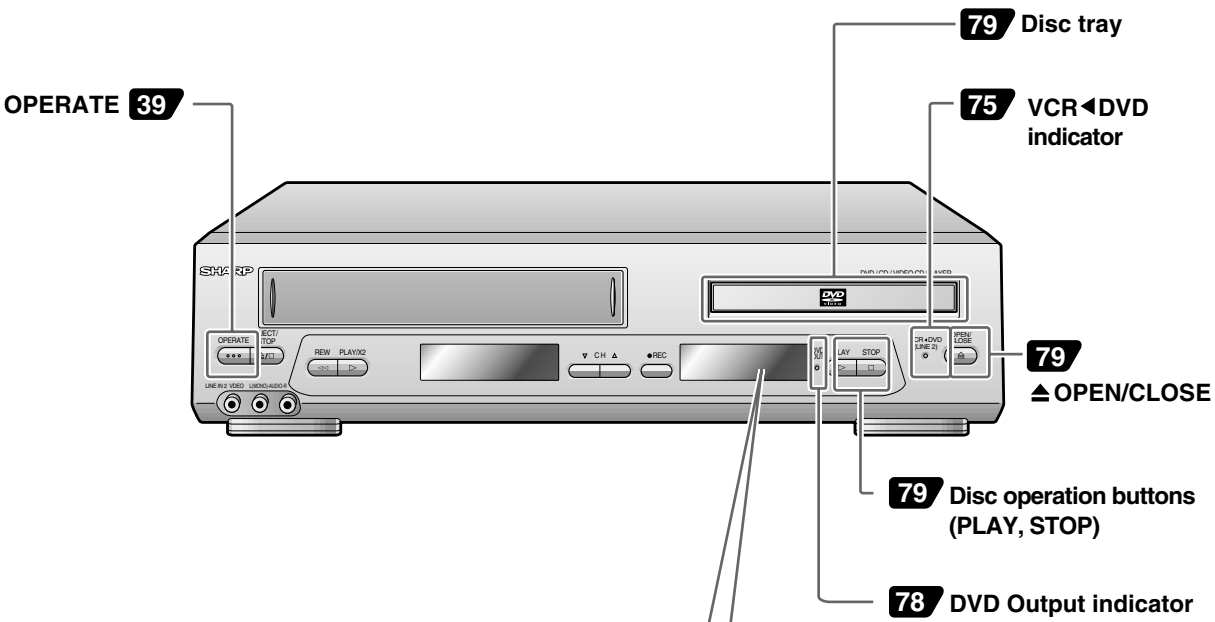


VCR Front Panel Display

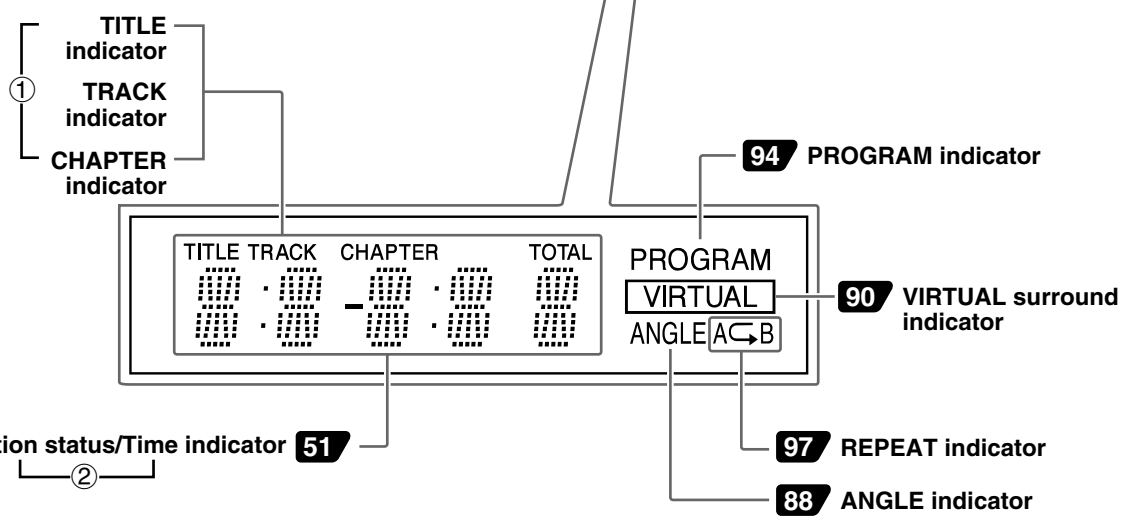


DVD Main Unit (Front)

Numbers in ▰ refer to the main pages in this Operation Manual where the topic is explained.



DVD Front Panel Display



You can toggle between ① and ② by pressing the remote control unit's **DISPLAY** button (page 51).

Remote (VCR Operation Buttons)

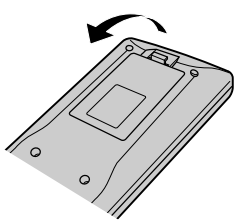
- The explanations on this page use the **VCR/DVD CHANGE Switch** in the **VCR** position.

Numbers in refer to the main pages in this Operation Manual where the topic is explained.

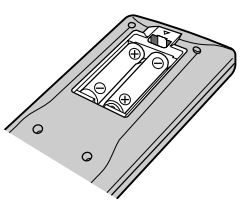


Loading the Batteries

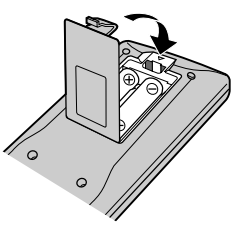
1 Open the battery cover by pulling the lid in the direction of the arrow.



2 Load the batteries.
Load the two batteries (AA, R6 or UM/SUM-3) supplied with the Remote so that the battery poles ⊕ and ⊖ are positioned as indicated.



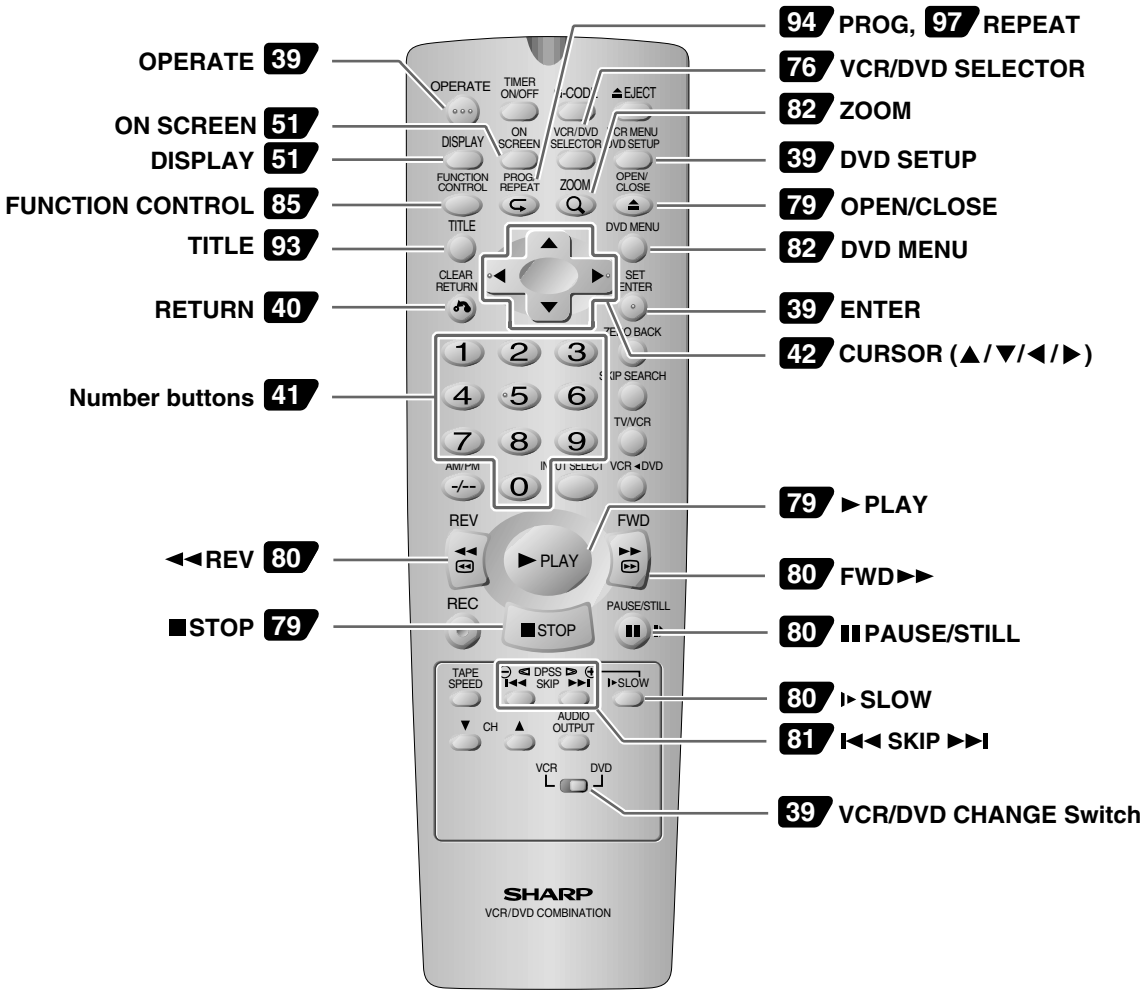
3 Close the battery cover by lowering the lid in the direction of the arrow.



Remote (DVD Operation Buttons)

- The explanations on this page use the **VCR/DVD CHANGE Switch** in the **DVD** position.

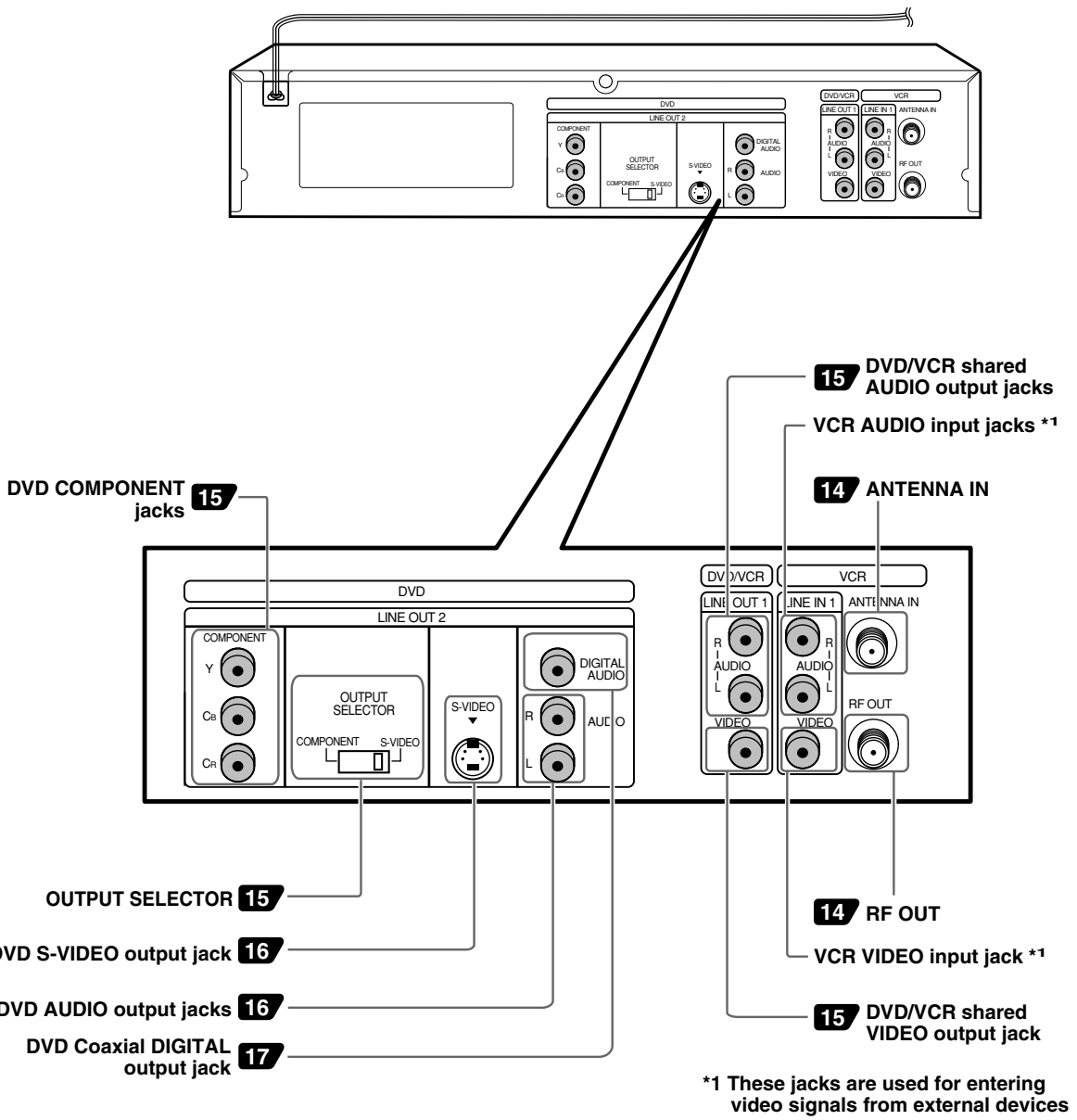
Numbers in refer to the main pages in this Operation Manual where the topic is explained.



NOTE

- Do not subject the Remote to shock, water or excessive humidity.
- The Remote may not function if the Unit sensor is in direct sunlight or any other strong light.
- Incorrect use of batteries may cause them to leak or burst. Read the battery warnings and use the batteries properly.
- Do not mix old and new batteries, or mix brands in use.
- Remove the batteries if you do not use the Remote for an extended period of time.

Main Unit (Rear)



*1 These jacks are used for entering video signals from external devices

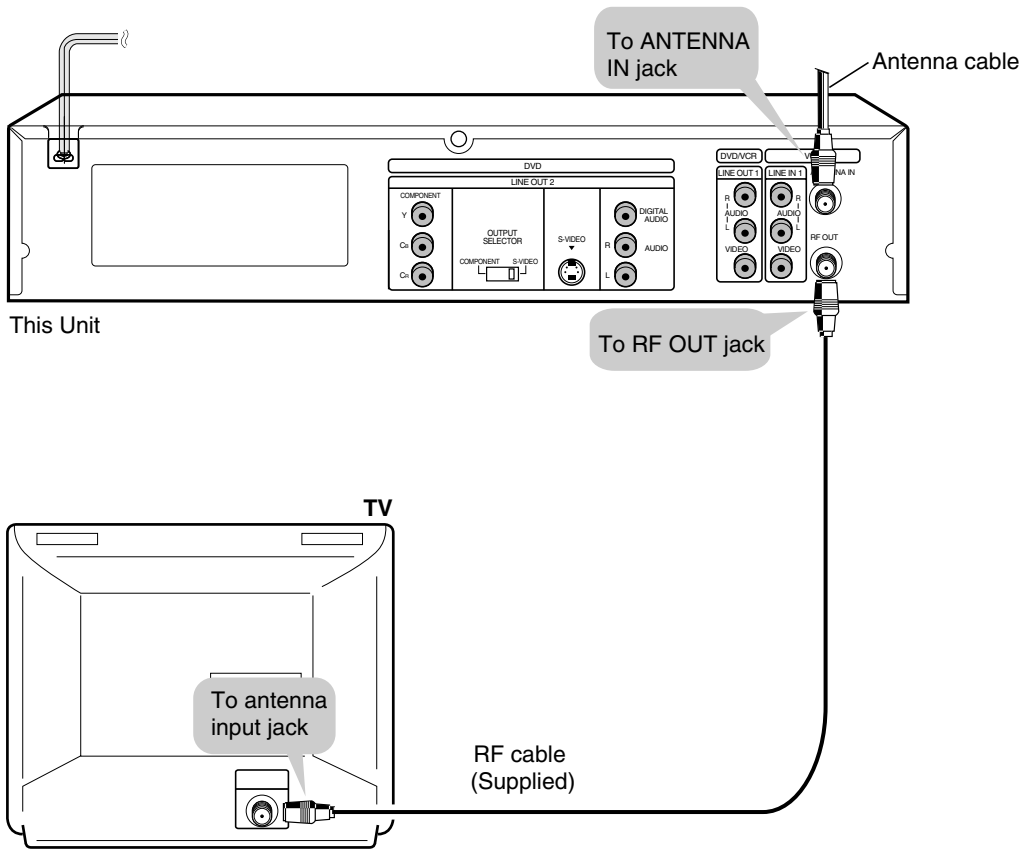
Basic Connection

Caution:

- Be sure to turn off the Unit and equipment to be connected before connecting.
- Read through the operation manual for the equipment to be connected.
- Be sure that the colours of the jacks and plugs match up when using a VIDEO/AUDIO cable.
- Be sure to keep the Unit connection cables separate from the TV antenna cable when you install the Unit, because it may cause electrical interference when you are watching television programmes.

Connecting to ANTENNA IN/RF OUT

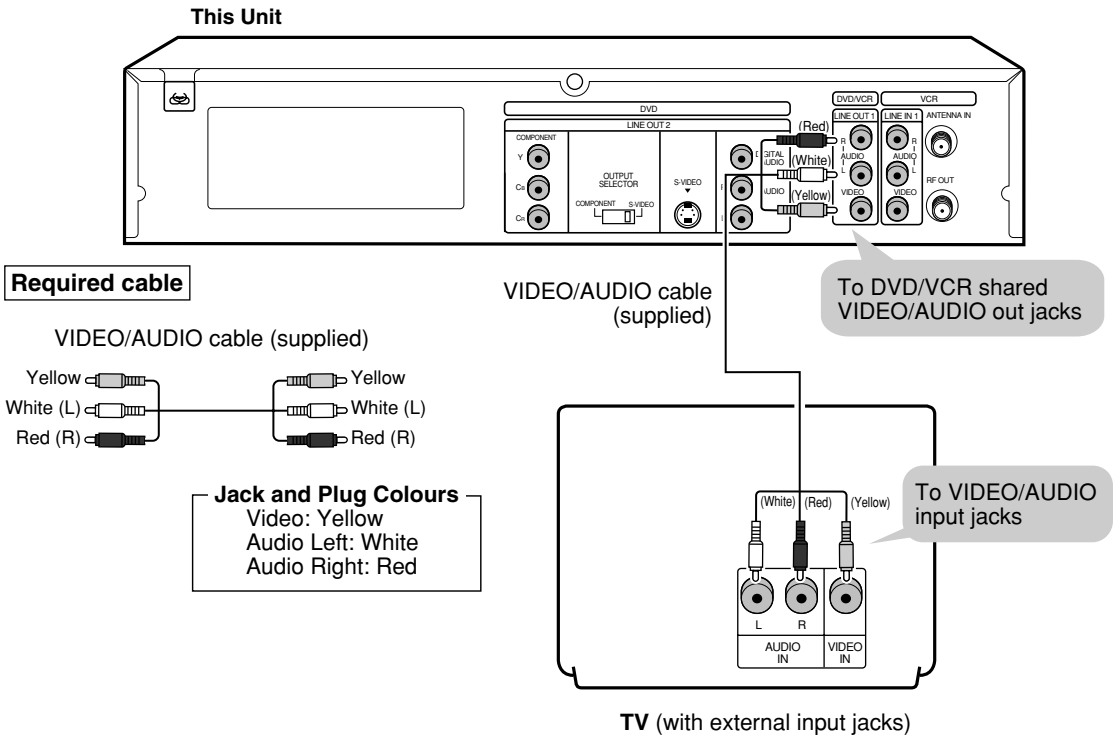
The connection method differs depending on the type of TV.



NOTE

- The signal from RF OUT is a Television Signal and VCR's playback signal. The DVD's playback signal will not be output.

Connecting a TV Equipped with VIDEO/AUDIO Input Jacks



You will not be able to hear all of the sound being output by the Unit if you use the supplied VIDEO/AUDIO cable to a monaural TV that has only one AUDIO input jack.

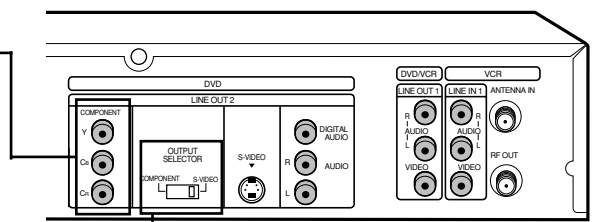
NOTE

- Make sure that colours of the jacks and plugs match up when connecting the cable.
- Connect the Unit directly to the TV. If you attempt to view video on a TV connected via a VCR, the copy protection function will scramble the picture.
- If you want to listen to the audio through audio equipment, connect only the VIDEO cable to the TV.

Using the Component Colour (Y, C_B and C_R) Output Jacks

Colour Output Jacks (Y, C_B and C_R):

Some TVs and monitors are equipped with input jacks for the component colour signals (Y, C_B and C_R). By connecting these input jacks to the corresponding output jacks on the Unit, you can enjoy higher quality playback images.
If you are using a TV or monitor equipped with Y, C_B and C_R jacks, use these jacks rather than the S-VIDEO OUT jack. If you are using the Y, C_B and C_R jacks, set the OUTPUT SELECTOR switch to COMPONENT.



OUTPUT SELECTOR:

S-VIDEO : Used when a monitor or TV is connected to the S-VIDEO jack.
COMPONENT : Used when the connected monitor or TV is equipped with Y, C_B and C_R input jacks.

DVD Audio Connections

Connecting a TV Equipped with S-VIDEO Input Jacks

When you want to achieve a better video image by connecting a TV equipped with an S-VIDEO input connector to the Unit, you should use an S-VIDEO cable (commercially available) to connect the TV to the Unit.

Connecting to Audio Equipment

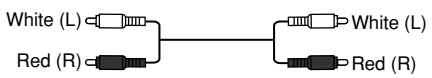
Connecting the Unit to audio equipment provides normal stereo sound plus powerful stereo sound enhanced by Dolby Digital (5.1 channel), DTS, and MPEG Audio.

Playing 2 channel audio

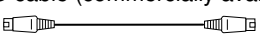
■ Analogue Connection

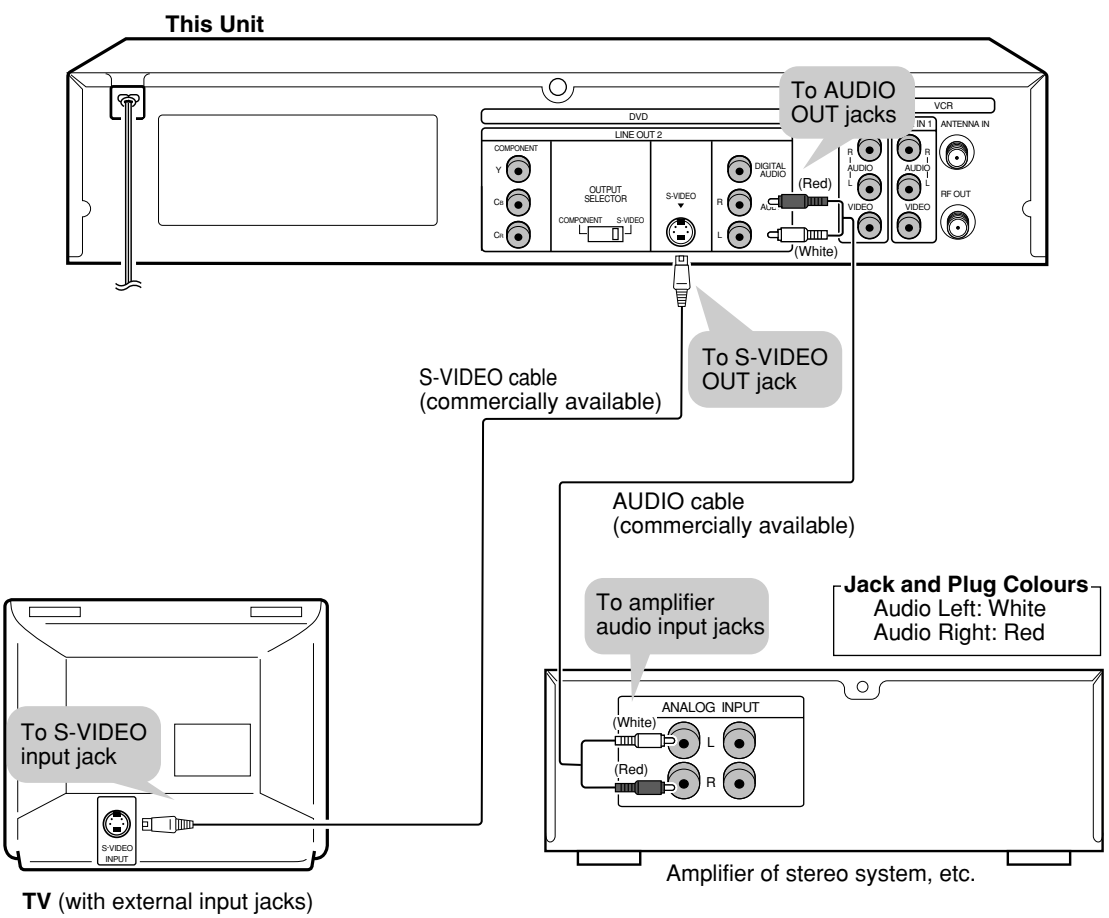
Required cables

AUDIO cable (commercially available)



S-VIDEO cable (commercially available)





TV (with external input jacks)

If the Unit is set to OPERATE ON, the DVD signals will be output from the DVD OUT jacks at all times. (The DVD signals will be output from the DVD OUT jacks also when using the VCR.)

Playing Dolby Digital (5.1 channel), DTS or MPEG audio

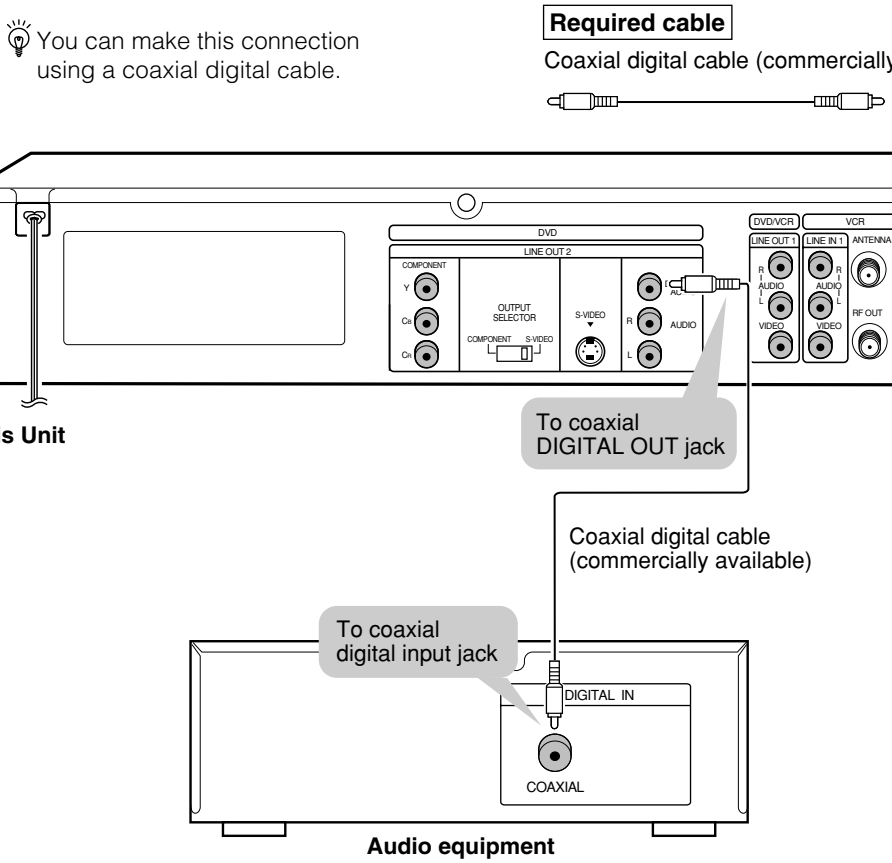
Connecting an amplifier with a Dolby Digital/DTS/MPEG Audio digital surround processor or a Dolby Digital/ DTS/MPEG Audio surround processor to your Unit's coaxial digital jack provides richer and more powerful audio play.

■ Connection to a processor or amplifier with a coaxial digital input jack

You can make this connection using a coaxial digital cable.

Required cable

Coaxial digital cable (commercially available)



Digital Connection to an MD to Record a CD

Some Audio CDs and VIDEO CDs have a short silent section between musical tracks. When sound from discs such as these is digitally recorded by connecting the Unit directly to a digital recorder (such as an MD player), the music may be recorded continuously and track numbers may be lost.

■ Digital Connection to Audio Equipment or MD Player without a Dolby Digital Decoder

- Audio CD or VIDEO CD
  Play the disc as you normally would, with the audio mode set to "L+R" (see page 89). With a digital connection, audio of a disc recorded with DTS sounds abnormal in this case.
- DVD
  With a digital connection, audio cannot be produced from a DVD recorded with Dolby Digital (5.1 channel), Dolby Surround (Pro Logic), DTS or MPEG Audio, so you should use an analogue connection to play such discs. Discs with linear PCM audio should play normally.

NOTE

- This connection is not possible if the processor or amplifier to which you want to connect does not have a coaxial digital input jack.

Adjusting the Video Channel

To view the output of your Unit on the television screen, you must select an unused channel on your TV and tune it to the output of your Unit (see Table 1 for factory preset to UHF Channel).

1 Make sure both units (TV and this Unit) are connected (power cord) to the power outlet.

2 Turn on your TV.

3 Select an unused channel on your TV.

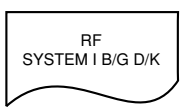
4 Set the power on the Unit to off. (If the Unit is ON, press **OPERATE** to turn off the power.)

5 Keep pressing **VCR MENU** for more than two seconds to light up the UHF Channel (see Table 1) on the VCR Front Panel display.

Table 1

		Factory Preset UHF Channel
Ex.	South East Asia, Hong Kong	60

6 Adjust the tuning of the selected TV channel until the RF pattern appears on your TV screen. (Refer to your Operation Manual for tuning procedures.)



(RF pattern)



7 Press ◀ / ▶ to select the RF output system that corresponds to your TV by referring to the chart shown to the below, and press **SET**.

		I,B/G,D/K (RF system)
Ex.	Hong Kong	I
	China, Russia	D/K
	South East Asia	B/G

8 Press **OPERATE** to turn on the power of the Unit. Select any channel on the VCR tuner. If a picture appears and sound can be heard, then the RF output system is correctly set. If a picture appears but no sound can be heard, then perform step 7 above to select another RF output system.

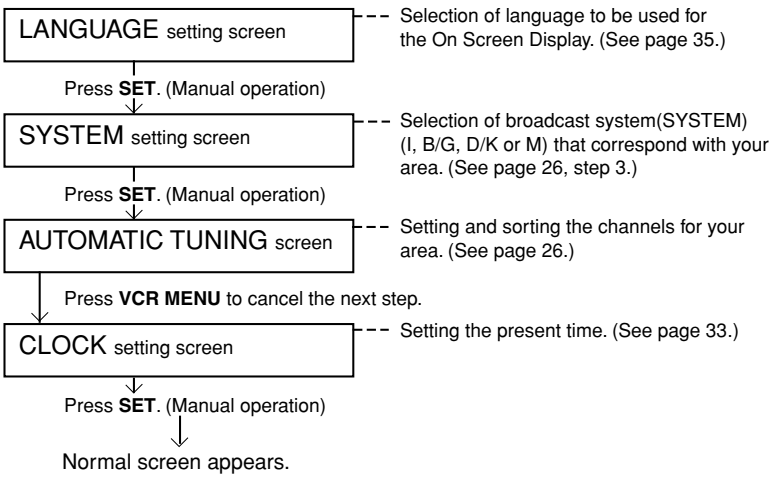


NOTE

- Make sure the sound is not muted when checking the RF output system.
- It is not necessary to change the system to RF system “M”. The Unit will automatically detect and change the RF system to “M” when receiving the NTSC signal.
- If picture interference appears on the TV screen in step 6 above, you can change the video channel (RF output channel from the Unit to TV) with the following procedure. If UHF Channel (see Table 1) is an active broadcast channel in your area, manually select a different channel (UHF 21 to UHF 69) (see below) and then retune your TV as above.
  ① Press **OPERATE** to turn off the power.
  ② Keep pressing **VCR MENU** for more than two seconds to light up the UHF Channel (see Table 1) on the VCR Front Panel display.
  ③ Press ▲ / ▼ on the Remote to manually select an unused channel for use as the video channel.
  ④ Perform steps 6 to 7 above using the newly selected video channel.
  ⑤ Repeat steps ③–④ to select the optimal video channel.

Auto Tuning System

This Unit is equipped with an Auto Tuning System to provide easier set up of the Unit. After following the instructions for “Basic Connection” on pages 14 and 15 and “Adjusting the Video Channel” on page 18, turn on your TV, press **OPERATE** to turn on the Unit, and select the video channel. The Unit will automatically display the setting screens as shown below.





NOTE

- If the Language selection and Auto Tuning have already been performed, the Clock setting screen will first appear. To reset all VCR settings and perform the Auto Tuning from the Language setting screen, see page 35. (Perform “VCR-RESET”)

VCR Setup

VCR Setup 22
Menu Screen 22
Mode Selection 23
Setting the Channels 25
Auto Tunning 26
Manual Tunning 27
Channel Skip/Cancelling Skip 30
Channel Skip 30
Cancelling Skip 32
Setting the Clock 33
Initial Setting of Clock 33
Changing the Clock Setting 34
Setting the Language 35
VCR-RESET 35
Initial Setting of Language 35
Changing Language 35
VCR Display Information 36
How to Display Indicators 36
VCR Front Panel Display 36

Mode Selection

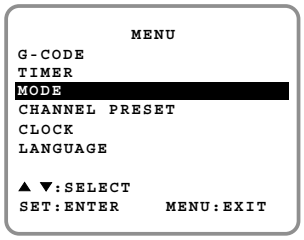
You can set the basic functions listed in the table below on the MODE selection screen.

Preparation

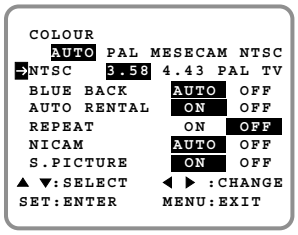
- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **VCR**.

1 Press **VCR MENU** to display the menu screen.

2 Select “MODE” with ▲ / ▼ and then press **SET** to confirm.



3 Set “NTSC” to “3.58”, “4.43” or “PAL TV” with ◀ / ▶. Then press ▼.

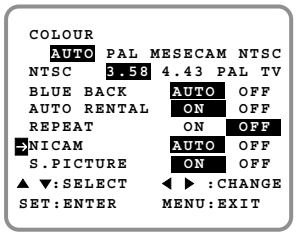


NTSC 3.58 ..... When using NTSC 3.58 TV system. (Input signal: NTSC 3.58)
NTSC 4.43 ..... When using NTSC 4.43 TV system. (Input signal: NTSC 4.43)
PAL TV...... When using PAL TV system. (Input signal: NTSC 4.43)



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4 Set “NICAM” to “AUTO” or “OFF” with ◀ / ▶. Then press ▼.



AUTO..... Usually select “AUTO”.
OFF..... Select “OFF” when your TV does not have good NICAM signal reception and a lot of noise is heard when the AUTO mode is set. (Selecting “OFF” will change it to normal audio signal reception.)

- You can change the COLOUR, BLUE BACK, AUTO RENTAL, REPEAT and S.PICTURE settings the same way (See pages 57, 58, 60 and 61).

5 Press **SET** to enter.
- The screen returns to normal.

NOTE
- If you press **VCR MENU** to exit the mode selection screen in Step 4, the data will not be stored. Be sure to press **SET** to store the data.



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Setting the Channels

Your Unit can receive VHF channels 1A to E12 (US AIR 2 to 13), CATV/HYPER channels S1 to S41 and UHF channels E21 to E69 (US AIR 14 to 78). Your Unit has 84 programmable channel positions, each of which can be set to any of the broadcast and CATV/HYPER channels.

- Channel positions 13 through 83 will not be displayed when selected. These channel positions have been set at the factory to be skipped.
- To view a skipped channel position, tune that position to a broadcast CATV/HYPER channel, or cancel the channel skip function for that position.

VCR CHANNEL	BROADCAST TV CHANNEL				
	SOUTH EAST ASIA	CHINA	US AIR	CATV	JAPAN
001	1A				
002	E-2	C-1			
003	E-3	C-2	2	02	
004	E-4	C-3	3	03	
005	E-5	C-7	7	07	5
006	E-6	C-8	8	08	6
007	E-7	C-9	9	09	7
008	E-8		10	10	
009	E-9	C-10	12	12	10
010	E-10	C-11	13	13	11
011	E-11	C-12		23	12
012	E-12	Z-8		24	
021	E-21	C-13	14		13
022	E-22	C-14	15	67	14
023	E-23	C-15	17	68	16
024	E-24	C-16	18	69	17
025	E-25	C-17	19	71	18
026	E-26	C-18	21	72	20
027	E-27	C-19	22	73	21
028	E-28	C-20	23	75	22
029	E-29	C-21	25	76	24
030	E-30	C-22	26	77	25
031	E-31	C-23	27	79	26
032	E-32	C-24	29	80	28
033	E-33		30	81	29
034	E-34		31	83	30
035	E-35		33	84	32
036	E-36		34	85	33
037	E-37		35	87	34
038	E-38	C-25	37	88	36
039	E-39	C-26	38	89	37
040	E-40	C-27	39	91	38
041	E-41	C-28	41	92	40
042	E-42	C-29	42	93	41
043	E-43	C-30	43	100	42
044	E-44	C-31	45	101	44
045	E-45	C-32	46	102	45
046	E-46	C-33	47	104	46
047	E-47	C-34	49	105	48
048	E-48	C-35	50	106	49
049	E-49	C-36	51	108	50
050	E-50	C-37	53	109	52
051	E-51	C-38	54	110	53
052	E-52	C-39	55	112	54
053	E-53	C-40	57	113	56
054	E-54	C-41	58	114	57
055	E-55	C-42	59	116	58
056	E-56	C-43	61	117	60
057	E-57	C-44	62	118	61
058	E-58	C-45	63	120	62
059	E-59	C-46	65	121	
060	E-60	C-47	66	122	
061	E-61	C-48	67	124	
062	E-62	C-49	69	125	
063	E-63	C-50	70		
064	E-64	C-51	71		
065	E-65	C-52	73		
066	E-66	C-53	74		
067	E-67	C-54	75		
068	E-68	C-55	77		
069	E-69	C-56	78		
070		C-57	79		
071			28	79	27
072			37	89	
073			46	103	
074			56	112	55
075			65	122	

VCR CHANNEL	BROADCAST TV CHANNEL				
	SOUTH EAST ASIA	CHINA	US AIR	CATV	JAPAN
081	S-1			97	3
082	S-2	Z-1		99	
083	S-3	Z-2		14	
084	S-4	Z-3		15	
085	S-5	Z-4		16	
086	S-6			17	
087	S-7	Z-5		18	
088	S-8	Z-6		20	
089	S-9	Z-7		21	
090	S-10	C-6		22	4
091	S-11	Z-9		25	
092	S-12	Z-10		26	
093	S-13	Z-11		28	
094	S-14			29	
095	S-15	Z-12		30	
096	S-16	Z-13		31	
097	S-17	Z-14		32	
098	S-18	Z-15		33	
099	S-19	Z-16		35	
100	S-20	Z-17		36	
101	S-21	Z-18		37	
102	S-22	Z-19		39	
103	S-23	Z-20		40	
104	S-24	Z-21		41	
105	S-25	Z-22		43	
106	S-26	Z-23		44	
107	S-27	Z-24		45	
108	S-28	Z-25		47	
109	S-29	Z-26		48	
110	S-30	Z-27		49	
111	S-31	Z-28		51	
112	S-32	Z-29		52	
113	S-33	Z-30		53	
114	S-34	Z-31		55	
115	S-35	Z-32		56	
116	S-36	Z-33		57	
117	S-37	Z-34		59	
118	S-38	Z-35		60	
119	S-39	Z-36		61	
120	S-40	Z-37		63	
121	S-41			64	
122	X		4	04	
123	Y	C-4	5	05	
124	Z	C-5	6	06	
125	Z+1			95	1
126	Z+2			96	2
127		Z-2		29	
128		C-3			
129					
130		C-4	5	05	
131				97	3
132				98	
133				99	
134		Z-5		18	
135				19	
136				19	
137				20	
138			9	09	
139			10	10	8
140			11	11	9
141				25	
142				26	
143				27	
144				32	
145				33	
146				34	
147				37	
148				38	

VCR CHANNEL	BROADCAST TV CHANNEL				
	SOUTH EAST ASIA	CHINA	US AIR	CATV	JAPAN
149				41	
150		Z-12		42	
151				45	
152		Z-12		46	
153				49	
154				50	
155				53	
156		Z-12		54	
157				57	
158		Z-12		58	
159				61	
160		Z-12		62	
161			15	66	
162			16	67	15
163				69	
164				70	
165			20	71	19
166				73	
167				74	
168			24	75	23
169				77	
170			27	78	
171				81	
172				82	
173			32	83	31
174				85	
175				86	
176			36	87	35
177				90	
178			40	91	39
179				93	
180				94	
181			44	100	43
182				102	
183			48	104	47
184				106	
185				107	
186			52	108	51
187				110	
188				111	
189				114	
190				115	
191			60	116	59
192				118	
193				119	
194			64	120	
195				123	
196			68	124	
197			72		
198			76		

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Auto Tunning

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **VCR**.
- Ensure the Video channel is selected on the TV.



1 Press **VCR MENU**. Press ▲ / ▼ to select “CHANNEL PRESET”. Press **SET** to confirm.

```
MENU
G-CODE
TIMER
MODE
CHANNEL PRESET
CLOCK
LANGUAGE

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

2 Press ▲ / ▼ to select “AUTO”. Press **SET** to confirm.

```
CHANNEL PRESET
AUTO
MANUAL




▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

3 Press ◀ / ▶ to select the SYSTEM you desire. Press **SET** to confirm. Select the broadcast system used for areas where I, B/G, D/K, M reception is necessary.

```
AUTOMATIC TUNING
SYSTEM        I B/G D/K M




              ◀ ▶ :CHANGE
SET:ENTER     MENU:EXIT
```

		I,B/G,D/K,M (Receiving system)
Ex.	Hong Kong	I
	China, Russia	D/K
	South East Asia	B/G
	U.S.A., Japan, Philippine	M

NOTE

- If the broadcast signal system does not match the Unit receiving system, tuning is not possible.

4 The channel display on the TV screen will continue through all of the channels and when finished, the TV screen will return to the MOVE (channel sort) screen. The bar display indicates the estimated amount of channels tuned.

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5 To change the order of tuned-in broadcast, press ▲ / ▼/ ◀ / ▶ to select the channel to be moved. Press **SET** to confirm .
"SELECTED: CH078" will appear.

```
          MOVE          1/5
 1CH002   7        13
 2CH003   8        14
 3CH004   9        15
 4CH075  10        16
 5CH078  11        17
 6        12        18
SELECTED :CH078
▲ ▼ ◀ ▶:SELECT
SET:ENTER     MENU:EXIT
```

6 Press ▲ / ▼/ ◀ / ▶ to select the new position for the channel. Then, press **SET** to confirm.
"SELECTED: CH078" will disappear.

```
          MOVE          1/5
 1CH078   7        13
 2CH002   8        14
 3CH003   9        15
 4CH004  10        16
 5CH075  11        17
 6        12        18

▲ ▼ ◀ ▶:SELECT
SET:ENTER     MENU:EXIT
```

7 To move additional channels, repeat steps 5 and 6.

8 When the channels have been sorted into the desired order, press **VCR MENU** to return to the normal screen.



NOTE

- If additional unwanted channels are found, refer to page 30 to skip them.
- If some channels are unable to be found, refer to "Manual Tuning" below.

Manual Tunning

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **VCR**.
- Ensure the Video channel is selected on the TV.

Example: Tuning Channel Position 48 to Broadcast TV Channel E7 (VCR CHANNEL 007 for system I area.)

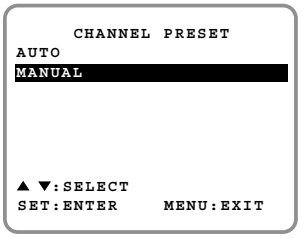
1 Press **VCR MENU**. Press ▲ / ▼ to select "CHANNEL PRESET" and press **SET** to confirm.

```
          MENU
G-CODE
TIMER
MODE
CHANNEL PRESET
CLOCK
LANGUAGE

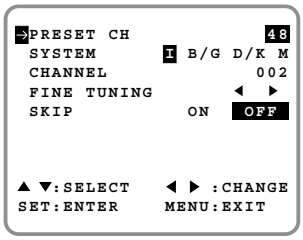
▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```


DVNC60W(E)#023_032.pm6 27 01.10.12, 1:20 PM

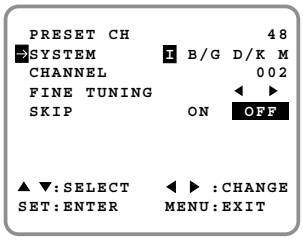
2 Press ▲ / ▼ to select “MANUAL” and press **SET** to confirm.



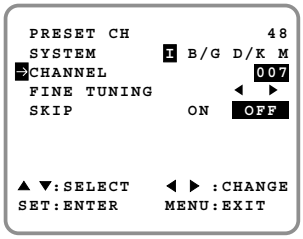
3 Select the preset channel position number 48 with the number buttons (**0** to **9**) or ◀ / ▶ and press ▼.



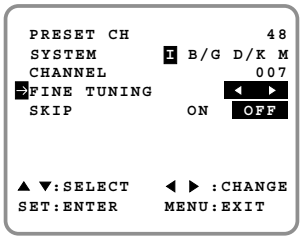
4 Press ◀ / ▶ to select the “SYSTEM” you desire and press ▼.



5 Press the number buttons (**0** to **9**) or ◀ / ▶ until you see the desired broadcast channel E7 (VCR CHANNEL 007) on your TV and press ▼.



6 For fine tuning, press ◀ / ▶ until the broadcast channel comes in clearly on your TV.



7 To check that the broadcast channel you tuned the Unit to is VHF E7, select channel 7 using the TV tuner.



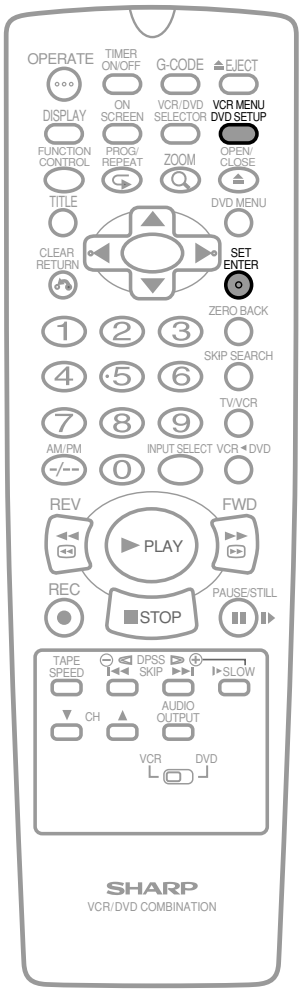
DVNC60W(E)#023_032.pm6 28 01.10.11, 9:21 am

8 Select the video channel on your TV again.
- If the channel you tuned the Unit to and the one on the TV do not match, repeat steps 5 through 7.

9 Press **SET**. (This will set channel position 48 in memory and return to channel position 49 for tuning.)

10 If you want to set additional channels, repeat steps 3 through 9.

11 Press **VCR MENU** to return to the normal screen.



NOTE

- Use Auto Tuning normally for presetting.
  ① Auto tuning may not be able to preset some broadcasts.
  Use manual tuning to preset.
  ② The same broadcast may be preset more than once.
  Select the channel with the clearer broadcast.
  ③ After auto tuning is completed, confirm the preset channels in order.
  If no sound can be heard from any of the preset channels, reset the SYSTEM (I, B/G, D/K, M) with manual tuning.

DVNC60W(E)#023_032.pm6 29 01.10.11, 9:21 am

Channel Skip/Cancelling Skip

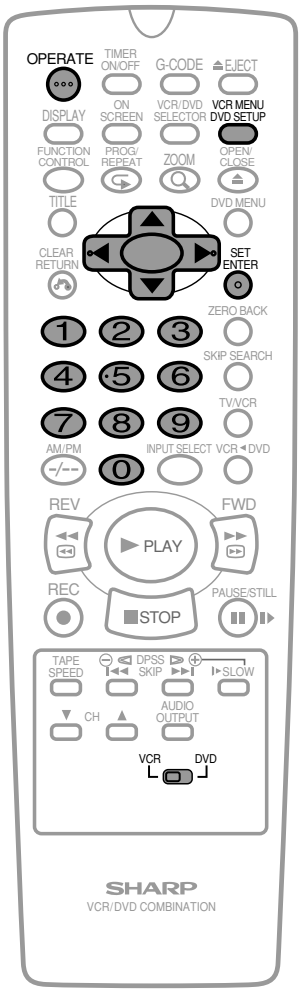
Channel Skip

If there are channel positions that are not preset, you can skip them with the following procedure.

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **VCR**.

Example: Skip channel position 12.



1 Press **VCR MENU**. The menu screen will appear. Press ▲ / ▼ to select “CHANNEL PRESET” and press **SET** to confirm.

```
          MENU
G-CODE
TIMER
MODE
CHANNEL PRESET
CLOCK
LANGUAGE

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

2 Press ▲ / ▼ to select “MANUAL”. Press **SET** to confirm.

```
     CHANNEL PRESET
AUTO
MANUAL




▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

3 Set the channel position you wish to skip with ◀ / ▶ or number buttons (**0** to **9**).

```
→PRESET CH              12
 SYSTEM       I B/G D/K M
 CHANNEL              012
 FINE TUNING          ◀ ▶
 SKIP          ON    OFF


▲ ▼:SELECT   ◀ ▶ :CHANGE
SET:ENTER     MENU:EXIT
```

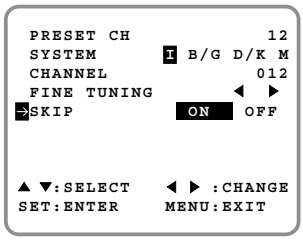
4 Press ▲ / ▼ to select “SKIP”.

```
 PRESET CH              12
 SYSTEM       I B/G D/K M
 CHANNEL              012
 FINE TUNING          ◀ ▶
→SKIP          ON    OFF


▲ ▼:SELECT   ◀ ▶ :CHANGE
SET:ENTER     MENU:EXIT
```


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5 Press ◀/▶ to set “ON” and press **SET** to confirm.

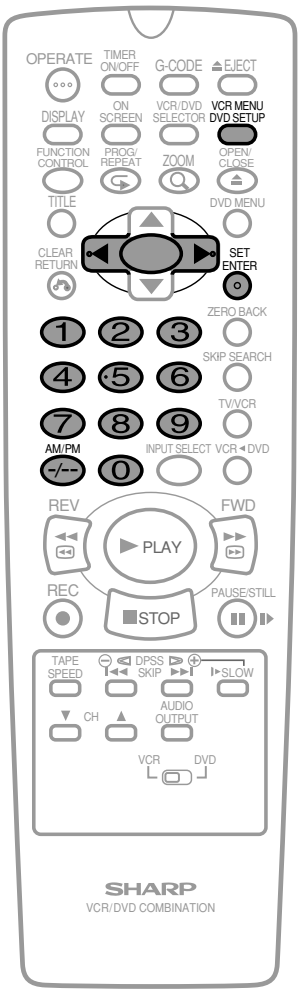


6 If you wish to set more channels to be skipped, repeat steps 3 through 5.

7 Press **VCR MENU** to return to the normal screen.

NOTE

- When making channel inputs with the number buttons (**0** to **9**), first select the one figure input or two figures input using the -/-- button on the Remote.



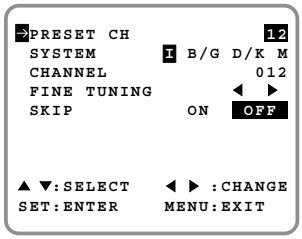
DVNC60W(E)#023_032.pm6 31 01.10.11, 9:22 am

Cancelling Skip

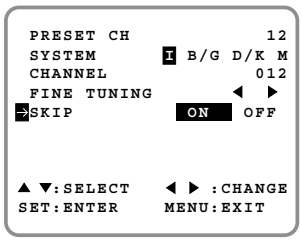
Example: Reset channel position 12.

1 Follow the steps 1 and 2 from “Channel Skip” on page 30.

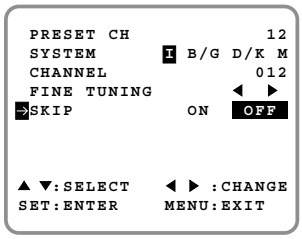
2 Select the channel position you wish to unskip with ◀ / ▶ or number buttons (**0** to **9**).



3 Press ▲ / ▼ to select “SKIP”.

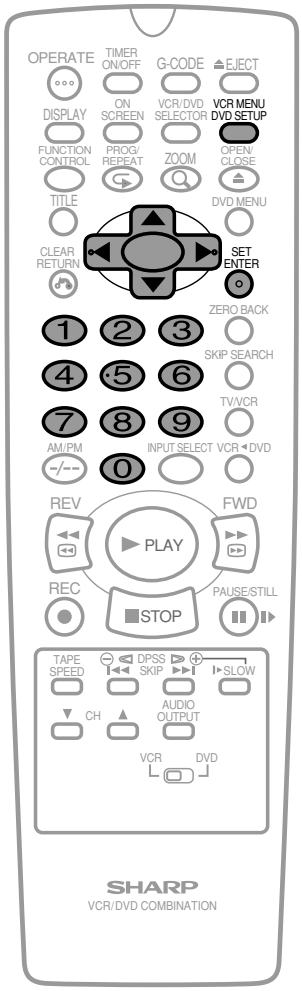


4 Press ◀ / ▶ to set “OFF” and press **SET** to confirm.



5 If you wish to unskip more channels, repeat steps 2 through 4.

6 Press **VCR MENU** to return to the normal screen.



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Setting the Clock

When you use the Unit for the first time or after a power failure of more than 60 minutes the clock has to be reset. Apply power to the unit to switch it on. Then perform the following procedure.

Initial Setting of Clock

1 First set the language and system setting. (See page 20.) Then press **SET**.

2 Press ▲ / ▼ to select whether the clock should show 12-hour AM/PM time or 24-hour time and press ▶.

```
          CLOCK

MODE  TIME    DATE  YEAR
24H    0:00    1/01  00



MODE:24H/12H
◀ ▶:SELECT    ▲ ▼ :CHANGE
SET:ENTER     MENU:EXIT
```

3 Set the present time with the number buttons (**0** to **9**) or ▲ / ▼ on the Remote and press ▶. (First set the “hour” digits and the “minute”. If there is only one “hour” or one “minute” digit, enter a 0 first.)

```
          CLOCK

MODE  TIME    DATE  YEAR
24H   10:28    1/01  00



◀ ▶:SELECT    ▲ ▼ :CHANGE
SET:ENTER     MENU:EXIT
```

NOTE

- If 12H mode is selected, set the AM or PM indicator.

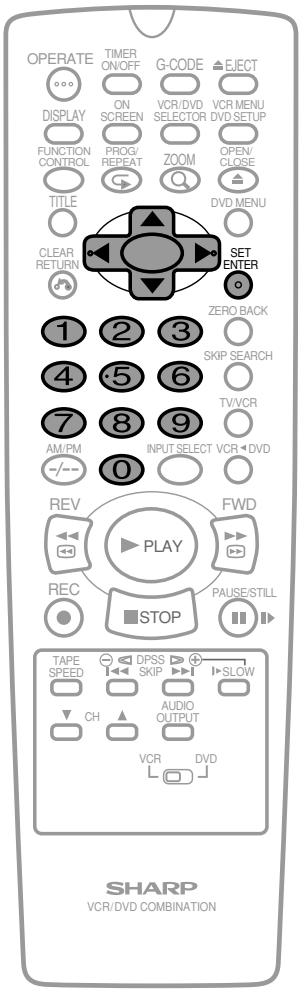
4 Set the date with the number buttons (**0** to **9**) or ▲ / ▼ on the Remote and press ▶. (First set the “day” digits and then the “month”. If there is only one “day” or one “month” digit, enter a 0 first.)

```
          CLOCK

MODE  TIME    DATE  YEAR
24H   10:28   15/12  00



DATE :DAY/MONTH
◀ ▶:SELECT    ▲ ▼ :CHANGE
SET:ENTER     MENU:EXIT
```



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5 Set the year digits with the number buttons (**0** to **9)** or ▲ / ▼ on the Remote. (If there is only one “year” digit, enter a 0 first.)

```
CLOCK

MODE  TIME    DATE  YEAR
24H  10:28    15/12  00



SELECT :◀ ▶  CHANGE:▲ ▼
ENTER  :SET   EXIT :MENU
```

6 Press **SET** to return to the normal screen.

Changing the Clock Setting

1 If the clock has already been set previously and you want to change it, select “CLOCK” from the MENU, and then follow the steps 1 to 6 from “Initial Setting of Clock” on pages 33 and 34.

2 Press **VCR MENU**. Press ▲ / ▼ to select “CLOCK” and press **SET** to confirm. Press **VCR MENU** to return to the normal screen.

```
MENU
G-CODE
TIMER
MODE
CHANNEL PRESET
CLOCK
LANGUAGE

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```



NOTE

- If the precise clock time is required (within a second), do not press **SET** until the exact start of the minute after setting the year (after completing step 5). The clock will start operation as soon as **SET** is pressed.
- If you prefer the clock display time in the 12-hour AM/PM system, select “12H” in step 2. In this case, when you set the present time using the number buttons, first press **AM/PM** on the Remote to select AM or PM, and then set the present time.

DVNC60W(E)#033_035.pm6 34 01.10.11, 9:22 am

Setting the Language

This Unit is factory preset to display the LANGUAGE setting screen after **VCR MENU** is pressed when the Unit is operated for the first time. In some cases, the retailer may have already set the language, and the CLOCK setting screen will appear after **VCR MENU** is pressed. To reset the Unit, perform the following steps.



VCR-RESET

1 Press **OPERATE** to POWER OFF on the Unit.

2 Press **OPERATE** to POWER ON on the Unit.

3 Press **VCR MENU** and **CH ▼** on the Remote at the same time for five seconds. (The LANGUAGE setting screen should appear.)

NOTE

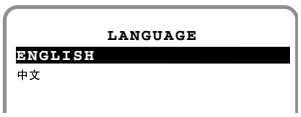
- When the Unit is reset, all channel settings, guide channel setting for the G-CODE system and timer setting will be cancelled.

Initial Setting of Language

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **VCR**.

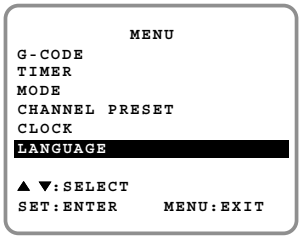
1 Press ▲ / ▼ to select the language and press **SET** to confirm.



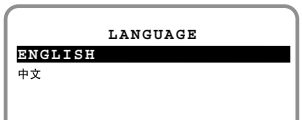
Changing Language

If the language has already been set previously and you want to change it, follow the steps below.

1 Press **VCR MENU**. Press ▲ / ▼ to select “LANGUAGE ” and press **SET** to confirm.



2 Select the language with ▲ / ▼ and press **SET** to confirm.



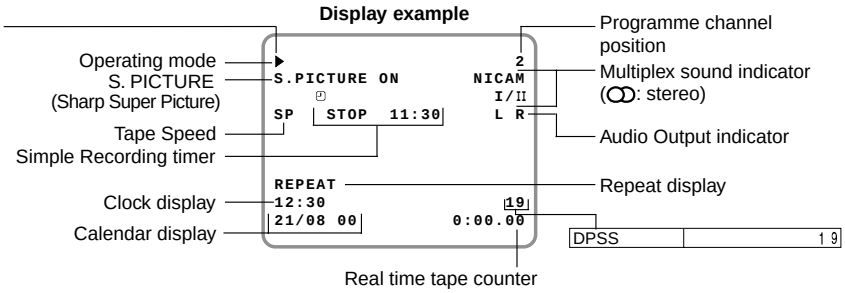
3 Press **VCR MENU** to return to the normal screen.

DVNC60W(E)#033_035.pm6 35 01.11.28, 4:01 pm

VCR Display Information

The tape counter and VCR mode can be shown on the screen while you are playing back a tape or watching a broadcast on the video channel.

▶	PLAY, X2
▶▶	VSF, FF
◀◀	VSR, REW
■	STOP, CASSETTE IN
▶❚❚	F. ADV
▶❚❚	SLOW
❚❚	STILL
●	REC
●❚❚	REC PAUSE



How to Display Indicators

1 Turn on your TV and select the video channel.

2 Press **OPERATE** to turn on the Unit. Mode indicators are displayed in the AUTO display screen.

3 Each time **ON SCREEN** is pressed, the screen changes as follows:

↱AUTO Display → FULL Display → Counter Display → Display OFF ┐

AUTO DISPLAY

When an operation button, number buttons, or **CH ▲ / ▼** is pressed, the current mode or the number of the channel will be displayed in the upper section of the TV screen for about 3 seconds.

NOTE

- When you record a video signal output from this Unit on another VCR, press **ON SCREEN** to select Display Off. (If the mode indicator is displayed on the screen, it is also recorded on the tape.)

VCR Front Panel Display

Each time **DISPLAY** on the Remote is pressed, the display changes in the following way. (However, the following is the case when the clock time is set and displayed in the 12-hour system.)

↱Tape counter mode → Clock mode → VCR OPERATION ┐

- **Tape counter mode** ..... The current tape position will be displayed.
- **Clock mode** ..... The current time will be displayed.
- **VCR OPERATION** ..... The current operation (example: PLAY, STOP) will be displayed.

The meaning of the main indicators is shown below. (This list does not include all indicators.)

Display Examples

	Cassette-In Indicator	SLOW	Slow	VSR	Video Search Rewind
PLAY	Play/Double Speed Playback	•REC	Record (When operating mode is displayed)	VSF	Video Search Forward
REW	Rewind	PAUSE	Rec Pause	L1/L2	LINE IN 1/2
FF	Fast Forward	STOP	Stop		
STILL	Still/ Frame Advance		Recording with the Timer/ Simple Recording Timer		
SHARP	When AC power cord is first plugged in		Recording Mark		

NOTE

- The default time and date will not be displayed if the clock has not been set.
- The Unit will return to Tape counter mode each time it is switched on.
- If you are recording from this Unit to another, make sure you remove the display from the screen otherwise it will be recorded.

DVNC60W(E)#036.pm6 36 01.11.14, 10:13 AM

DVD Setup

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About the SETUP Screen 38
TV MODE Setting 39
Setting up for Playback of an NTSC Disc 40
PARENTAL Setup Setting 41
Setting the parental level for the first time 41
Changing the Parental Level 43
Temporary Parental Level Setting 44
AUDIO Setting 45
Setting the COMPRESSION (Dolby Digital output level) 45
Setting the DOLBY DIGITAL 46
Setting the MPEG 47
DISC LANGUAGE Setting 48
Setting SUB TITLE, AUDIO and MENU languages from ENGLISH and CHINESE 48
Selecting languages from OTHER 49
OSD Language Setting 50
DVD Display Information 51
Operation Mode Indicators 51
Language Code List for Disc Language 52

DVNC60W(E)#037 Tobira.pm6 37 01.10.11, 9:23 am

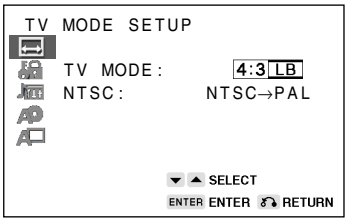
DVD Setup

About the SETUP Screen

This section describes how to specify various basic settings using the SETUP screen. The list below shows all the items you can set and adjust. See the following pages for details on each setup procedure.

- The setting procedures described on the following pages are available only in STOP mode.
- The OSD (On Screen Display) screens used in this Operation Manual are purely for the purposes of explanation. The actual displays may differ slightly from what is shown here.

(Example) TV MODE SETUP



Setup item list

Main Menu

39 TV MODE SETUP
- Specifies the setting for the type of TV connected and the playback format for wide-screen video material.
- Used to specify the colour system in accordance with the TV connected when playing back an NTSC disc.

TV MODE
- 4 : 3 PS
- 4 : 3 LB
- 16 : 9

NTSC
- NTSC
- NTSC→PAL

41 PARENTAL SETUP [1 to 8 (ON)/OFF]
- Sets or changes the parental level (1 to 8).
- Sets the password used to prevent the parental level from being changed too easily.

45 AUDIO SETUP
- Use this setting for increasing the average volume of Dolby Digital audio when playing a DVD.
- Use this setting for specifying either “BITSTREAM” or “D-PCM”/“PCM” as the digital type output.

COMPRESSION [ON/OFF]

DIGITAL
- BITSTREAM
- D-PCM

MPEG
- BITSTREAM
- PCM

48 DISC LANGUAGE
- Use this setting for selecting languages of subtitle, audio track and disc menu recorded on a disc.

SUBTITLE
- ENGLISH
- CHINESE
- OTHER

AUDIO
- Languages you can select are same as above.

MENU
- Languages you can select are same as above.

50 OSD LANGUAGE SETUP
- Use this setting for selecting OSD languages.

- ENGLISH
- 中文

- Numbers in ▬ refer to the pages where the setting procedures are described.

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TV MODE Setting

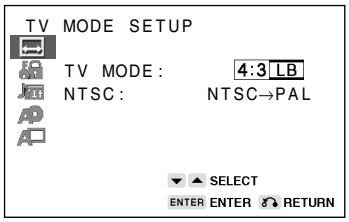
Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **DVD**.

1 While this Unit is stopped, press **DVD SETUP** to display the SETUP screen.

When you use the Unit for the first time, press **DVD SETUP**. "OSD LANGUAGE SETUP" screen appears. You should set the language to be used for the OSD (On Screen Display). See "OSD LANGUAGE Setting" on page 50.

2 Use ▲ or ▼ to select the " TV MODE SETUP".

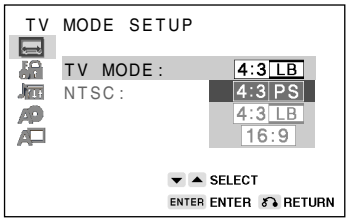


3 Press **ENTER** and then use ▲ or ▼ to select "TV MODE".

4 Press **ENTER** to display the items you can select.

5 Use ▲ or ▼ to select 4:3 LB, 4:3 PS or 16:9.

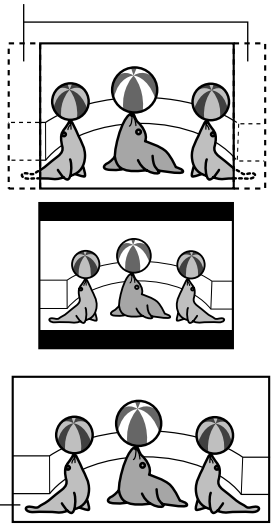
(Example) Selecting 4:3 PS.



- 4:3 PS — (Pan & Scan mode): When wide-screen video material is played, this mode clips the right and left sides of the image so that it can be viewed on a conventional TV screen.
  - Some wide-screen DVDs that do not permit Pan & Scan mode playback are automatically played in letterbox mode (black bands top and bottom).
- 4:3 LB — (Letterbox mode): When wide-screen video material is played in this mode on a conventional TV screen, black bands appear at the top and bottom of the screen.
- 16:9 — (Wide-screen TV): This is the correct mode for playing wide-screen videos on a wide-screen TV.
  - You must also set the screen mode on your wide-screen TV to "FULL".



Cut off when a wide-screen video image is played.



The actual appearance of the image depends on the screen mode setting of your wide-screen TV.

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6 Press **ENTER** to confirm the “TV MODE” setting.
- When you have completed the setting above, press **RETURN** to exit the SETUP screen. However, if you want to specify the “NTSC” setting in succession, proceed to step 1 below.

Setting up for Playback of an NTSC Disc

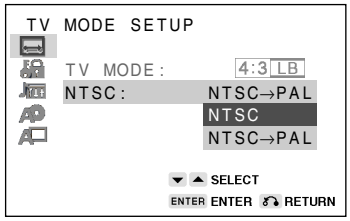
- Before setting the “NTSC” (video signal system), perform the step 1 to 2 on the previous page.

1 Press **ENTER** and then use ▲ or ▼ to select “NTSC”.

2 Press **ENTER** to display the items you can select.

3 Use ▲ or ▼ to select “NTSC” or “NTSC→PAL”.

(Example) Selecting “NTSC”



- About the NTSC settings:
  NTSC: Select this setting when you have an NTSC TV or an NTSC-compatible Multi-System TV connected to the Unit.
  NTSC→PAL: Select this setting when you have a PAL TV connected to the Unit. This setting converts the NTSC signal to a modified PAL signal.



NOTE
- When you play back the PAL discs, either the setting of “NTSC→PAL” or “NTSC” can be used on a PAL TV or a Multi System TV.

4 Press **ENTER** to confirm the setting.

5 If you want to exit the SETUP screen and return to the normal screen, press **RETURN**.
- If you want to go on and specify other settings (PARENTAL SETUP, AUDIO SETUP, DISC LANGUAGE or OSD LANGUAGE SETUP), press ▲ or ▼ to display other SETUP screen without pressing **RETURN**.

DVNC60W(E)#039_047.pm6 40 01.10.11, 9:25 am

PARENTAL Setup Setting

Certain discs come preset with country codes and parental level settings that are defined for particular countries. DVDs equipped with the parental lock function are rated according to their content. The rated content allowed by a parental lock level and the way a DVD can be controlled may vary from disc to disc. Some discs, for example, may let you edit out violent scenes and replace them with scenes more suitable for viewing by children. You can also use the parental lock to disable playback of the DVD entirely.

This Unit supports the following parental level settings.

PARENTAL LEVEL .. Defines the parental level, which controls the types of scenes that are played back from a disc.

CODE ..... Allows selection of a country code available on a disc.

NOTE

- You can use the parental lock function only with DVDs that are equipped with the parental lock feature.
- The parental level depends on countries. If you do not set the country code correctly, it fails to work correctly.



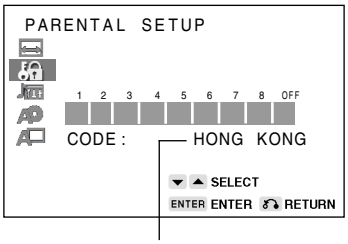
Setting the parental level for the first time

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **DVD.**

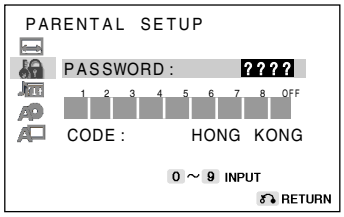
1 Press **DVD SETUP** to display the SETUP screen.

2 Use ▲ or ▼ to select the " PARENTAL SETUP".



CODE is set to "HONG KONG" on DV-NC60W, "SINGAPORE" on DV-NC60 at the factory.

3 Press **ENTER** to display the password specification and verification screen.



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4 Use the number buttons (**0** to **9**) to enter a 4-digit password.

PASSWORD : 1 2 3 4 — Displayed when “1234” is being entered as the password.

- When you have finished entering your 4-digit number, – – – – (password verification display) appears.

If you have already set your password:
– – – – appears in step 3 above.

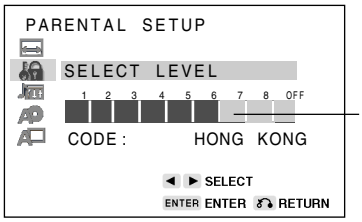
NOTE

- Enter the numbers slowly as each number is stored separately.
- Press ◀ to return to the previous digit.
- If you enter the wrong number three times in succession, the normal screen reappears.

If you forget your password, you can erase your current password by pressing ■ **STOP** four times.

5 Press **ENTER** to confirm your password, re-enter the numbers you entered in step 4 (using the number buttons (**0** to **9**)).

6 Press **ENTER** and then use ◀ or ▶ to change the parental level.



Can be changed to any number between 1 and 8 or OFF.

- Level 1: for general viewing (highly restricted level that can be viewed by anyone. Sensational scenes are cut or replaced with other scenes.) → Level 8: for adults only (a level to be viewed by adults only. Unrestricted view of any scene.) The smaller the number, the greater the level of restriction.

NOTE

- When “PARENTAL LEVEL” is set to “OFF”, DVD discs can be played back regardless of the parental level.
- On some DVDs, the parental level setting is fixed and cannot be modified.

7 Press ▼ to select “CODE” and then use ◀ or ▶ to select the desired country code.



Country Code List

USA	SWEDEN	MALAYSIA
CANADA	HOLLAND	INDONESIA
JAPAN	NORWAY	TAIWAN
GERMANY	DENMARK	PHILIPPINE
FRANCE	FINLAND	AUSTRALIA
UK	BELGIUM	RUSSIA
ITALY	HONG KONG	CHINA
SPAIN	SINGAPORE	–
SWISS	THAILAND	–

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8 Once you have changed the parental level in step 6 above, press **ENTER** to confirm the setting.

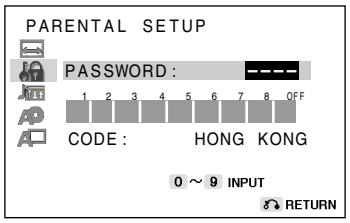
9 If you want to exit the SETUP screen and return to the normal screen, press **RETURN**.
- If you want to go on and specify other settings, press ▲ or ▼ to display other SETUP screen without pressing **RETURN**.

NOTE
- You can use the parental lock function only with DVDs that are equipped with the parental lock feature.
- On some DVDs, the parental level setting is fixed and cannot be modified.
- Some DVDs allow the viewer to temporarily change the parental level setting to view the original scenes. When this prompt appears, input the password to view the original scenes.

Changing the Parental Level

- Before changing the parental level, perform the step 1 to 2 on page 41.

1 Press **ENTER** to display the password verification screen.



2 Use the number buttons (**0** to **9**) to enter the 4-digit password that was set previously.

PASSWORD : ✱ ✱ ✱ ✱

- When you have finished entering your 4-digit number, ▭ ▭ ▭ ▭ changes to ✱ ✱ ✱ ✱.

3 Press ◀ or ▶ to change the parental level.
- The same screen as step 6 on the previous page appears.
- If you enter the wrong number three times in succession, the normal screen reappears.

If you forget your password, you can erase your current password by pressing ■ **STOP** four times.

4 Once you have changed the parental level in step 3 above, press **ENTER** to confirm the setting.

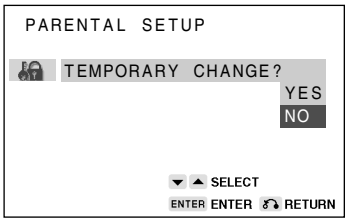
5 If you want to exit the SETUP screen and return to the normal screen, press **RETURN**.
- If you want to go on and specify other settings, press ▲ or ▼ to display other SETUP screens without pressing **RETURN**.



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Temporary Parental Level Setting

In addition to “PARENTAL Setup Setting” on page 41, some DVDs will prompt the viewer to temporarily change the parental level. In this event, the following screen appears.



When this screen appears, use the procedure described below to temporarily change the level.

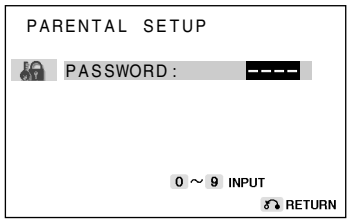
1 Use ▲ or ▼ to select “YES” or “NO”.

YES: Temporarily changes the parental level (sets the level to a value other than the current setting (page 41)).

NO: Does not change the parental level (maintains the current level (page 41)).

2 Press **ENTER**.

- If “NO” was selected in step 1, the normal screen reappears.
- If “YES” was selected in step 1, the following screen appears.



- To temporarily change the parental level, enter your password (page 43) and confirm the password. The setting automatically changes temporarily to the disc-specific parental level.
- When you have completed the temporary change procedure, press **ENTER**. (The normal screen reappears.)

NOTE

- This change only applies while the current disc is being played.



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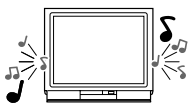
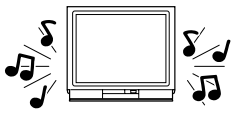
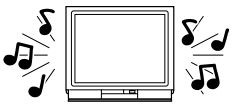
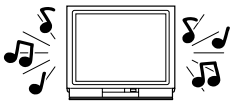
AUDIO Setting

COMPRESSION ..... Use this setting for increasing the average volume of Dolby Digital audio when playing a DVD.

DIGITAL/MPEG ..... Use these settings for specifying the type of digital output when playing a disc recorded using Dolby Digital/MPEG AUDIO.

Setting the COMPRESSION (Dolby Digital output level)

When Dolby Digital is used to record the audio on a DVD disc, the average overall volume level of the audio is relatively lower than that produced by a VIDEO CD/Audio CD. This is to provide the widest possible dynamic range. To counteract this, this Unit automatically raises the overall average volume level of a disc recorded using Dolby Digital to a level that is similar to that of a VIDEO CD/Audio CD.

	COMPRESSION: **OFF**	COMPRESSION: **ON**
 DVD Dolby Digital audio	 • Low audio level	 • Audio level the same as audio CD, etc.
 VIDEO CDs Audio CDs		



- **OFF.....** Audio level recorded on disc is played back without modification.
- **ON .....** Dolby Digital average audio level is increased so it sounds similar to that of VIDEO CD/Audio CD.

- Use of the "OFF" setting is recommended when the Unit is connected to audio equipment or, depending on the disc, the sound is abnormal.
- VIRTUAL DOLBY (QSURROUND) is disabled when "COMPRESSION" is set to "ON".

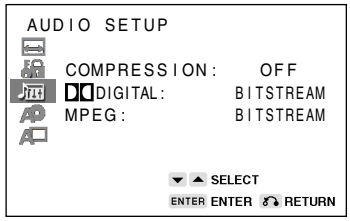
Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **DVD.**

1 Press **DVD SETUP** to display the SETUP screen.

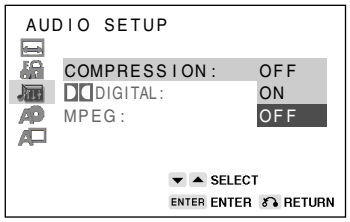
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2 Use ▲ or ▼ to select the " AUDIO SETUP".



3 Press **ENTER** and then use ▲ or ▼ to select "COMPRESSION".

4 Press **ENTER** to display the settings you can select.



5 Use ▲ or ▼ to select "ON" or "OFF".
- Use of the "OFF" setting is recommended when the Unit is connected to audio equipment.

6 Press **ENTER** to confirm the setting.
- When you have completed the above setting, press **RETURN** to exit the SETUP screen. However, if you want to specify the " DIGITAL" setting in succession, proceed to step 1 below.

NOTE
- Whenever the "COMPRESSION" setting is "ON", VIRTUAL Dolby setting is automatically changed to "OFF".

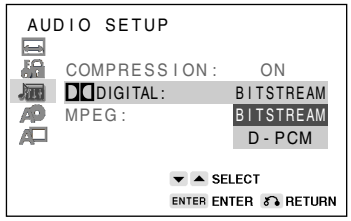
Setting the DOLBY DIGITAL

When playing a disc recorded using Dolby Digital (5.1ch)/MPEG Audio (5.1ch), you can specify either "BITSTREAM" or "D-PCM"/ "PCM" as the digital type output.

- Before setting the " DIGITAL" , perform the step 1 to 2 on pages 45 and 46.

1 Press **ENTER** and then use ▲ or ▼ to select " DIGITAL".

2 Press **ENTER** to display the settings you can select.





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3 Use ▲ or ▼ to select “BITSTREAM” or “D-PCM”.

BITSTREAM: Use this setting for a digital connection of a receiver (amplifier) equipped with a Dolby Digital decoder.

D-PCM: (Down Mix PCM) Use this setting for a digital connection to the PCM digital input jack of a DAT or MD, or for a digital connection to a receiver (amplifier) that does not have a Dolby Digital decoder.

4 Press **ENTER** to confirm the setting.

5 Press **RETURN** to exit the SETUP screen and return to normal screen.

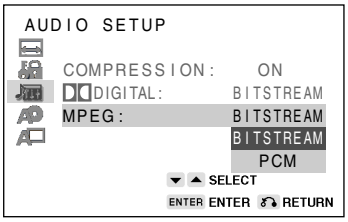
- When you have completed the above setting, press **RETURN** to exit the SETUP screen. However, if you want to specify the “MPEG” setting in succession, proceed to step 1 below.

Setting the MPEG

- Before setting the “MPEG”, perform the step 1 to 2 on pages 45 and 46.

1 Press **ENTER** and then use ▲ or ▼ to select “MPEG”.

2 Press **ENTER** to display the settings you can select.



3 Use ▲ or ▼ to select “BITSTREAM” or “PCM”.

BITSTREAM: Use this setting for a digital connection of a receiver (amplifier) equipped with an MPEG Audio decoder.

PCM: Use this setting for a digital connection to the PCM digital input jack of a DAT or MD, or for a digital connection to a receiver (amplifier) that does not have an MPEG Audio decoder.

4 Press **ENTER** to confirm the setting.

5 Press **RETURN** to exit the SETUP screen and return to normal screen.

- If you want to go on and specify other settings, use ▲ or ▼ to display the other SETUP screen without pressing **RETURN**.

When playing a disc recorded using DTS, the bitstream type signal is output regardless of the setting of “ DIGITAL” and “MPEG”.



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DISC LANGUAGE Setting

Use this setting for selecting the language for subtitles, audio tracks and disc menu.

- Note that the language you select is not displayed or does not sound if it is not recorded on the disc you are playing.
- With some discs, it is intentionally disabled by the disc manufacturer to change the language of the subtitle, audio track and disc menu through this SETUP screen. When playing such discs, try using **FUNCTION CONTROL** (pages 87 and 89) or **DVD MENU** (page 93).

Setting SUB TITLE, AUDIO and MENU languages from ENGLISH and CHINESE

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **DVD.**



1 Press **DVD SETUP** to display the SETUP screen.

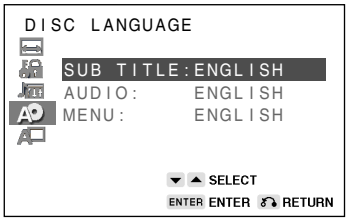
2 Use ▲ or ▼ to select the " DISC LANGUAGE".



3 Press **ENTER** and then use ▲ or ▼ to select "SUB TITLE", "AUDIO" or "MENU".

- You can set "SUB TITLE", "AUDIO" or "MENU" individually.

(Example) Selecting "SUB TITLE"



4 After selecting the item, press **ENTER**.

5 Select the language you want to use with ▲, ▼, ◀ and ▶.

(Example) Selecting "CHINESE"



- **If you want to use any languages which are not on the OSD, proceed to step 1 under "Selecting languages from OTHER" on next page.**

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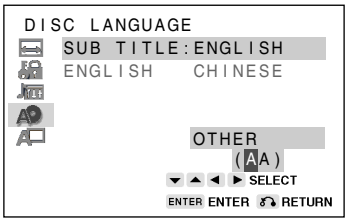
6 Press **ENTER** to confirm the setting.

7 Repeat steps 3 to 6 above to go on with other “DISC LANGUAGE” settings in succession.

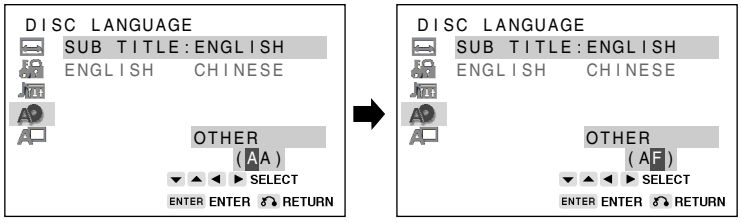
8 If you want to exit the SETUP screen and return to the normal screen, press **RETURN**.
- If you want to go on and specify other settings, press ▲ or ▼ to display other SETUP screen without pressing **RETURN**.

Selecting languages from OTHER

1 In step 5 on the previous page, select “OTHER” with ▲, ▼, ◀ and ▶, then press **ENTER** to set the “OTHER” input item (two letters).



2 **Example: To select “AF” (Afrikaans)**
Use ▲ or ▼ to select “A” as the first letter, use ◀ or ▶ to move to the second place, then use ▲ or ▼ to select “F”.



NOTE
- When “A” is selected as the first letter, only letters to the right of codes beginning with “A” can be selected as the second letter. Refer to the codes beginning with “A” on “Language Code List for Disc Language” (see page 52).
  Example: First letter-A
  Second letter-A,B,F,M,R,S,Y or Z

3 Press **ENTER** to confirm the setting.

4 If you want to exit the SETUP screen and return to the normal screen, press **RETURN**.
- However, if you want to specify other “DISC LANGUAGE” setting in succession, press **ENTER** and then select the setting item with ▲ and ▼.



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OSD LANGUAGE Setting

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **DVD.**

1 Press **DVD SETUP**. SETUP screen appears.

> **Caution:**
> When you use the Unit for the first time, press **DVD SETUP**. "OSD LANGUAGE SETUP" screen in the Step 3 appears. You should set the language to be used in the OSD.

2 Use ▲ or ▼ to select the " OSD LANGUAGE SETUP".



3 Press **ENTER** to display the languages you can select.



4 Use ◀ or ▶ to select the language you want to use.
(Example) "中文" (CHINESE)



5 Press **ENTER** to confirm the setting.

6 If you want to exit the SETUP screen and return to the normal screen, press **RETURN**.

- If you want to go on and specify other settings, press ▲ or ▼ to display the other SETUP screens without pressing **RETURN**.



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DVD Display Information

Operation Mode Indicators

Each time **ON SCREEN** on the Remote is pressed, the display on the TV screen changes the mode in the following sequence:

↱AUTO mode → ON mode → OFF mode┐

- **AUTO mode** .... Displays indicators for 3 seconds when operation begins.
- **ON mode** ..... Displays indicators continually until the operation mode is changed.
- **OFF mode** ..... Does not display indicators.

Each time **DISPLAY** on the Remote is pressed, the DVD Front Panel Display changes the mode in the following sequence:

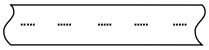
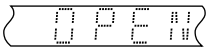
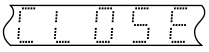
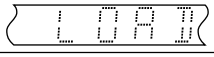
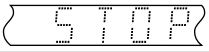
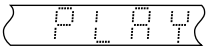
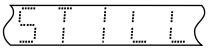
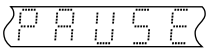
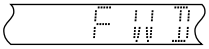
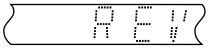
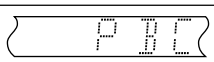
↱Time mode → Operation Status mode → Title mode┐

- **Time mode** ..... Displays the playing time*.
- **Operation Status mode** .... Displays the operation you perform such as “PLAY”, “REV”.
- **Title mode** ..... Displays the total number of titles, chapters, or tracks.

* *When the disc you attempt to play has no information on time, the operation status is displayed.*

This Unit displays the information shown below on the TV screen and on the DVD Front Panel Display depending on the operation status.

Display Examples

	TV Screen	DVD Front Panel Display	Remarks
If no disc is loaded or an unplayable disc is loaded when this Unit is switched on			“– – – – –” appears when the tray is closed and: 1) There is no disc in the tray. 2) The disc type is not DVD, VIDEO CD or Audio CD. 3) The disc is not loaded correctly (upside-down, etc.)
Tray open			
Tray closed			
Loading			
Stopped	■		The indicator changes to show other indicators (total time, etc.)
Playing	▶		
Still/Paused	❚❚		When a DVD or VIDEO CD is played back.
			When an Audio CD is played back.
Fast forward	▶▶		
Fast reverse	◀◀		
Slow	❙▶		Does not function for VIDEO CDs or Audio CDs.
Playback Control			

Region (Local) Number Error Indicator

If the region (local) number of the disc that you attempt to play differs from the region number of this Unit (see page 3), “ REGION CODE ERROR” appears on the TV screen and the disc tray slides out. (The disc cannot be played.)

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Language Code List for Disc Language

Code	Language Name	Code	Language Name	Code	Language Name	Code	Language Name
AA	Afar	FY	Frisian	MG	Malagasy	SL	Slovenian
AB	Abkhazian	GA	Irish	MI	Maori	SM	Samoan
AF	Afrikaans	GD	Scots Gaelic	MK	Macedonian	SN	Shona
AM	Ameharic	GL	Galician	ML	Malayalam	SO	Somali
AR	Arabic	GN	Guarani	MN	Mongolian	SQ	Albanian
AS	Assamese	GU	Gujarati	MO	Moldavian	SR	Serbian
AY	Aymara	HA	Hausa	MR	Marathi	SS	Siswat
AZ	Azerbaijani	HI	Hindi	MS	Malay	ST	Sesotho
BA	Bashkir	HR	Croatian	MT	Maltese	SU	Sundanese
BE	Byelorussian	HU	Hungarian	MY	Burmese	SV	Swedish
BG	Bulgarian	HY	Armenian	NA	Nauru	SW	Swahili
BH	Bihari	IA	Interlingua	NE	Nepali	TA	Tamil
BI	Bislama	IE	Interlingue	NL	Dutch	TE	Telugu
BN	Bengali; Bangla	IK	Inupiak	NO	Norwegian	TG	Tajik
		IN	Indonesian	OC	Occitan	TH	Thai
BO	Tibetan	IS	Icelandic	OM	(Afan) Oromo	TI	Tigrinya
BR	Breton	IT	Italian	OR	Oriya	TK	Turkmen
CA	Catalan	IW	Hebrew	PA	Panjabi	TL	Tagalog
CO	Corsican	JA	Japanese	PL	Polish	TN	Setswana
CS	Czech	JI	Yiddish	PS	Pashto, Pushto	TO	Tonga
CY	Welsh	JW	Javanese	PT	Portuguese	TR	Turkish
DA	Danish	KA	Georgian	QU	Quechua	TS	Tsonga
DE	German	KK	Kazakh	RM	Rhaeto-Romance	TT	Tatar
DZ	Bhutani	KL	Greenlandic			TW	Twi
EL	Greek	KM	Cambodian	RN	Kirundi	UK	Ukrainian
EN	English	KN	Kannada	RO	Romanian	UR	Urdu
EO	Esperanto	KO	Korean	RU	Russian	UZ	Uzbek
ES	Spanish	KS	Kashmiri	RW	Kinyarwanda	VI	Vietnamese
ET	Estonian	KU	Kurdish	SA	Sanskrit	VO	Volapük
EU	Basque	KY	Kirghiz	SD	Sindhi	WO	Wolof
FA	Persian	LA	Latin	SG	Sangho	XH	Xhosa
FI	Finnish	LN	Lingala	SH	Serbo-Croatian	YO	Yoruba
FJ	Fiji	LO	Laothian			ZH	Chinese
FO	Faroese	LT	Lithuanian	SI	Singhalese	ZU	Zulu
FR	French	LV	Latvian, Lettish	SK	Slovak		

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Watching the VCR

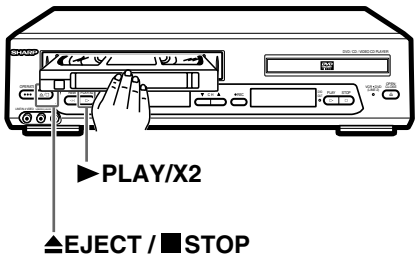
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Slow Motion Playback (with the Remote) 55
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Playback

Inserting a Video Cassette

Gently insert the video cassette into the cassette compartment. The Unit turns on automatically. If the cassette is inserted incorrectly, the loading system will not function. Do not force the cassette into the Unit. When the cassette has been properly loaded, "[oo]" appears on the VCR Front Panel display.
To remove the cassette, press **EJECT** during stop mode.



Playback

1 Switch on your TV and select the video channel.

2 Press **OPERATE** to turn on the Unit.

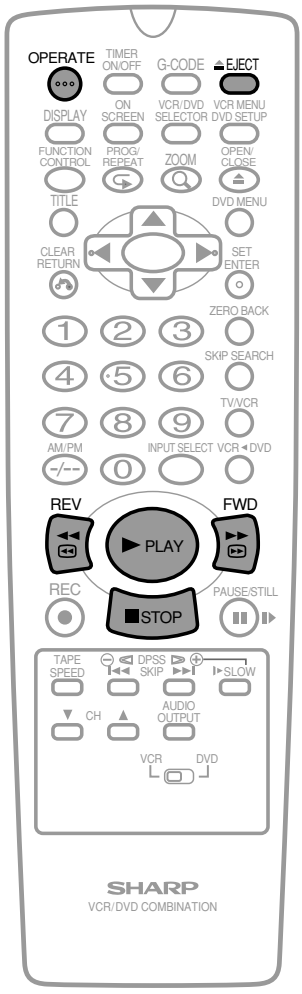
3 Insert a cassette.

4 Press ▶**PLAY**. (The auto tracking control system engages and "▶" flashes on the TV screen for a few seconds.)

5 Press ■**STOP** to stop playback. (If the tape reaches its end, the Unit will automatically rewind the tape to the beginning, eject the cassette, and turn off the power.)

NOTE

- NTSC tapes recorded in Hi-Fi and EP mode may appear distorted during playback. This does not indicate a malfunction. The tracking function can be used to slightly enhance the picture quality.



Video Search (with the Remote)

Use the following procedure to quickly find the section you want, while viewing the picture.

1 During playback, press **FF▶▶** for forward video search, or **◀◀ REW** for reverse search.
There are 2 search speeds in each direction. The Unit switches between them each time the button is pressed.

2 Press ▶**PLAY** to resume normal playback.

NOTE

- During video search of a tape recorded in the LP mode and EP mode, the upper part of the picture may be skewed to one side.

TAPE SPEED

		VSF/VSR①	VSF/VSR②
PAL TAPE MESECAM TAPE	SP	× 5	× 9
	LP	× 5	× 11
PAL TAPE	EP	× 9	× 27
NTSC TAPE	SP/LP	× 5	× 7
	EP	× 9	× 21

- VSF : Video Search Forward
- VSR : Video Search Reverse

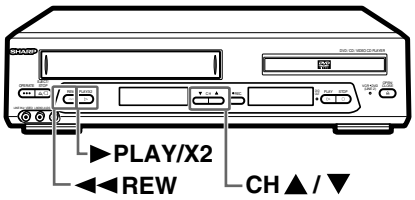
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Fast Forwarding and Rewinding

1 Press ■**STOP** to stop the video tape.

2 Press **FF**▶▶ or ◀◀ **REW**.

3 Press ■**STOP** to stop fast forward/rewind.



NOTE

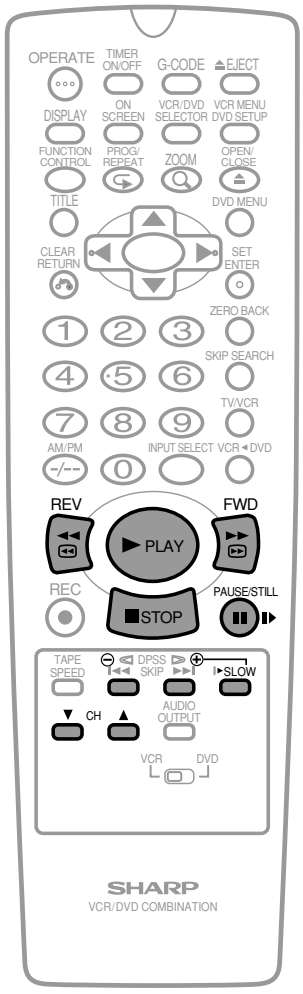
- If you use other than E-90/E-180 cassettes, fast forward and rewind may take somewhat longer.

Slow Motion Playback (with the Remote)

1 Press ▮▸**SLOW** on the Remote during playback.

2 Press **SLOW**⊖/⊕ (to the left of ▮▸**SLOW**) to vary the slow motion playback speed between 1/5 and 1/30 of the normal playback speed.

3 Press ▶**PLAY** to resume normal playback.



NOTE

- No noise can be erased when a tape recorded in the NTSC SP mode is played back in special modes (still, slow motion, etc.). However, this does not indicate a malfunction with the Unit.
- During slow motion, still picture, frame advance and double speed playback with a tape recorded in the PAL EP mode, noise may appear.

Still Picture and Frame Advance

1 Press ▮▮**PAUSE/STILL** during playback. This will freeze the picture on your TV.

2 If noise bars appear on the screen during still picture, set your Unit to the slow mode and press **CH** ▲ / ▼ to make the noise disappear. Then press ▮▮**PAUSE/STILL** again.

3 If there is vertical jitter during still picture playback, press **CH** ▲ / ▼ to stop jitter.

4 Press ▮▮**PAUSE/STILL** during still mode for frame advance.

5 Press ▶**PLAY** again to resume normal playback.

Double Speed Playback

1 Press ▶**PLAY** during playback. The tape will be played back at twice the normal speed.

2 Press ▶**PLAY** to resume normal playback.

NOTE

- Sound is muted during video search, slow motion, still picture, frame advance and double speed playback.
- To avoid damage to the tape, your Unit will resume normal playback after about 5 minutes of slow motion playback and still picture.
- If an NTSC tape and a PAL or MESECAM tape recorded in LP mode is played back in still picture, frame advance, slow motion, Double speed, or Video Search mode, the picture may have horizontal jitter and the top of the picture will be distorted, but this does not indicate VCR malfunction.

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NTSC Tape Play Back on PAL TV

When you play back an NTSC tape on your Unit, it is possible to use a PAL or multi-system compatible TV. However, please note the following:



- The picture will shrink vertically to some degree, as shown in the diagram, but this does not indicate a malfunction in your TV or Unit.
- If your TV does not have a V-HOLD control, the picture may roll and be unwatchable. However, if you use a TV with a V-HOLD control, you can stop the rolling by adjusting the V-HOLD control and watch the picture.
- Horizontal noise bars may appear on the screen during special effect playback (video search, still, slow, frame advance, and double speed playback), possibly accompanied by discolouring.
- Although NTSC tapes can be played back into a PAL TV, those tapes cannot be dubbed by a PAL system VCR connected to the AUDIO OUT and VIDEO OUT terminals of this product. Tapes recorded in this way cannot be played back on PAL system VCRs.
- Set the Colour mode to AUTO or NTSC, and set the NTSC mode to PAL TV.

Full Auto Playback

(This function only works when AUTO RENTAL mode on the MODE selection screen is set to “OFF”.)
Full Auto Playback lets you enjoy playback with ease. When you insert a cassette with the erasure protection tab removed, your Unit automatically turns on the power and plays back the tape. When the tape reaches its end, the Unit automatically rewinds the tape, ejects it and turns off the power.

NOTE

- If the erasure protection hole is covered, press ▶**PLAY** after the power turns on automatically.

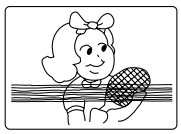
Auto Head Cleaning System

When the tape is inserted or ejected, this system automatically cleans the drum and heads with a special roller before recording or playback begins, protecting the heads and drum from dirt and preserving beautiful picture quality.

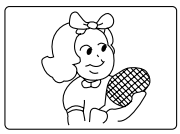
Auto Tracking Control System

This function automatically adjusts the tracking to match the recorded tape.
Auto tracking engages in the following cases:

- When you insert the cassette and begin playback.
- When you press **CH** ▲ / ▼ at the same time.
- When the Unit has been playing back an unrecorded section of tape, and then reaches a recorded tape segment.



Poor Tracking



Normal tracking

When auto tracking engages, “▶” on the TV screen flashes for a few seconds.

NOTE

- When a poorly recorded tape is played back, auto tracking may not operate normally. In this event, manually adjust the tracking with **CH** ▲ / ▼ to make any noise disappear.

Quick Start with Full Loading Mechanism

Your Unit has a standby function (Full Loading Mechanism) to allow immediate recording and playback. After pressing ●**REC** or ▶**PLAY**, it takes about 2 seconds until recording or playback is engaged when in the standby mode.

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AUTO RENTAL

(This function only works when AUTO RENTAL mode on the MODE selection screen is set to “ON”.)
The convenient auto rental mode lets you enjoy playback with ease. When you insert a cassette with the erasure protection tab removed (rental videos, etc.), your Unit automatically turns on the power, rewind the tape forward to find the recorded section, and plays back the tape. When the tape reaches the end of recorded section, the Unit automatically rewinds the tape, ejects it and turns off the power.



1 Press **VCR MENU** to display the menu screen.

2 Press ▲ / ▼ to select “MODE”.

3 Press **SET** to confirm.

4 Press ▲ / ▼ to select “AUTO RENTAL”.

```
COLOUR
   AUTO PAL MESECAM NTSC
NTSC    3.58 4.43 PAL TV
BLUE BACK      AUTO  OFF
→AUTO RENTAL    ON   OFF
REPEAT           ON  OFF
NICAM          AUTO  OFF
S.PICTURE       ON   OFF
▲ ▼:SELECT   ◀ ▶ :CHANGE
SET:ENTER    MENU:EXIT
```

5 Press ◀ / ▶ to select “ON” or “OFF”.

6 Press **SET** to confirm and then press **VCR MENU** to return to the normal screen.

NOTE

- If there is more than a 15 second unrecorded section between recorded sections, the tape will automatically stop and rewind. To watch the next recorded section, press ■**STOP**, fast forward to that section and play the tape.
- If the erasure protection hole is covered, press ▶**PLAY** after the power turns on automatically. (AUTO RENTAL Mode does not work.)
- The AUTO REPEAT mode has priority over the AUTO RENTAL mode. If the AUTO REPEAT mode is set to “ON” and the video cassette reaches its end, the Unit will rewind the tape and play it back again without ejecting the tape or turning off the power.

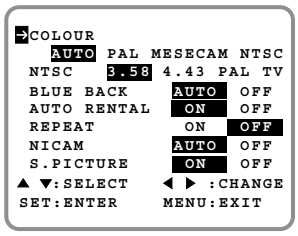
COLOUR

If the quality of a colour recording is poor, the picture may turn black and white. In this event, set the COLOUR mode on the MODE selection screen to PAL (fixed PAL colour mode), MESECAM (fixed MESECAM colour mode), NTSC (fixed NTSC mode). Normally, the colour mode should be set to “AUTO” mode. (See “Mode Selection” on page 23.)

1 Follow steps 1 to 3 from “AUTO RENTAL” above.

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2 Press ▲ / ▼ to select “COLOUR”.



3 Press ◀ / ▶ to select “AUTO”, “PAL”, “MESECAM” or “NTSC”.

4 Press **SET** to confirm and then press **VCR MENU** to return to the normal screen.

NOTE

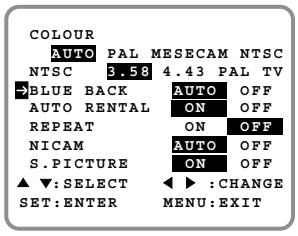
- When the colour mode is set to fixed colour mode while the Unit is playing back a black and white tape or is receiving a black and white broadcast, the picture may be coloured. In this event, set the COLOUR mode on the MODE selection screen to “AUTO” mode.

BLUE BACK

This function eliminates monitor noise and mutes sound during playback of unrecorded portions of a tape, and when receiving a non-broadcasting channel. A blue screen will also appear if the Unit is set to the Auxiliary input (LINE IN) mode but no video signal is fed to the Unit. (The BLUE BACK mode is set to “AUTO” at the factory.)

1 Follow steps 1 to 3 from “AUTO RENTAL” on page 57.

2 Press ▲ / ▼ to select “BLUE BACK”.



3 Press ◀ / ▶ to select “AUTO” or “OFF”.

4 Press **SET** to confirm and then press **VCR MENU** to return to the normal screen.

NOTE

- Blue Back does not function during still picture, variable slow motion and video search.
- Blue Back may not function properly if the broadcast signal is too strong or too weak.
- Blue Back cannot be recorded.
- If the antenna signal is weak while recording a TV programme, or if the input signal is weak while tape dubbing, the monitor screen may turn blue since the unit may not recognize whether or not a proper signal is being received. In this event, set the BLUE BACK mode to “OFF”.



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Playback of Hi-Fi Recorded Tapes

This Unit will play back both video and audio, or audio-only tapes recorded in the Hi-Fi mode.

NOTE

- Stereo sound output is only possible using the AUDIO OUT terminals. Sound from the radio frequency converter (RF OUT) is mono only. A blue screen will appear if audio-only Hi-Fi tapes are played back.

Audio Output Mode

The audio output mode is controlled by **AUDIO OUTPUT** on the Remote. The Unit is normally set to the Hi-Fi mode, with L and R displayed on the VCR Front Panel display, and normal stereo sound output.
Select L, and only the Hi-Fi Left channel audio is heard from both the Right and Left speakers.
Select R, and only the Hi-Fi Right channel audio is heard from both the Right and Left speakers.
If you select the mono linear track, L and R will disappear.

NOTE

- Should the Hi-Fi output level be poor, the Unit will automatically select the mono linear track output.
- When playing back tapes which have only Hi-Fi sound recorded: If Hi-Fi sound is not reproduced, or if there is some noise in the audio, press **CH** ▲ / ▼ until the sound improves.

Adjusting Hi-Fi Audio Tracking

(To adjust the Hi-Fi tracking manually when playing back a poorly recorded Hi-Fi tape.)

- Normally you can simultaneously press and hold both **CH** ▲ / ▼ to obtain the optimal Hi-Fi audio tracking.
- If Hi-Fi audio is unstable (frequent dropouts, etc.) with a rental video, a tape recorded on another VCR, restore normal tracking while playing back the tape as described below:

1 Simultaneously press **CH** ▲ / ▼.

2 Press **CH** ▲ / ▼ repeatedly at equal, short intervals until the L and R indicators disappear from the VCR Front Panel display.

3 Press **CH** ▲ / ▼ in the same manner while counting button operations until the and indicators reappear and then disappear again.

4 Press **CH** ▲ / ▼ again for half the number of times counted in step 3 above to obtain optimal track.



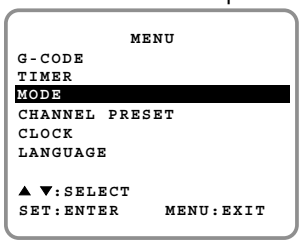
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Sharp Super Picture

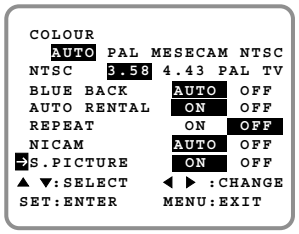
This function creates clearer picture quality only during playback.

1 Press **VCR MENU** to display the menu screen.

2 Select “MODE” with ▲ / ▼ and then press **SET** to confirm.



3 Select “S.PICTURE” with ▲ / ▼. Then set it to “ON” or “OFF” with ◀ / ▶.



ON:
Normally leave the mode set to ON. This high picture quality function will create a clearer image during playback.

OFF:
Set to OFF when playing back a tape on the Unit while editing or when strong noise appears on the screen.

4 Press **SET** to confirm and return to the menu screen.

5 Press **VCR MENU** to exit to normal screen.



NOTE

- This function only operates during playback. It will not operate when recording or watching a TV program with the VCR tuner.
- When playing S-VHS tape:
  1. Sharp Super Picture is set to off automatically. When finished playback, the setting will return to the previous setting.
  2. You cannot change ON/OFF setting manually.
- The ON/OFF status of the Sharp Super Picture can be checked when **ON SCREEN** is pressed to display OSD.
- When the Unit power is turned off, the Sharp Super Picture setting is retained in memory.
- If power is interrupted for more than 60 minutes (power failure, etc.), the setting will return to ON.

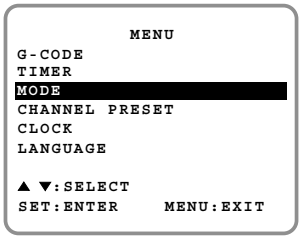
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Auto Repeat

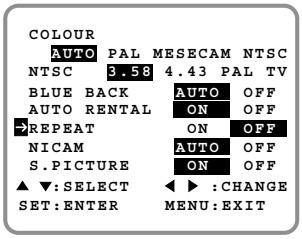
With this feature, the entire tape is played back repeatedly.

1 Press **VCR MENU** to display the menu screen.

2 Select “MODE” with ▲ / ▼ and then press **SET** to confirm.



3 Select “REPEAT” with ▲ / ▼. Then set the mode to “ON” or “OFF” with ◀ / ▶.



4 Press **SET** to confirm and return to the menu screen.

5 Press **VCR MENU** to return to normal screen.



NOTE

- “REPEAT” will be displayed on the OSD when the Auto Repeat mode is “ON”.
- If the Auto Repeat is “ON” and the tape is rewinded to the beginning with rewind or reverse video search, the tape will automatically start playback.

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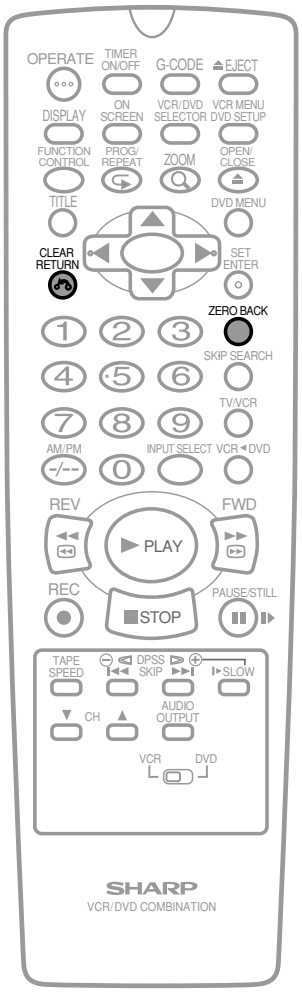
Auto Zero Back

The zero-back function makes the cassette fast forward (or rewind) to the previously set “0:00.00” point and stop there.

1 Make sure the counter is displayed, then press **CLEAR** on the Remote at the point you wish to return and later “0:00.00” is displayed.

2 Press **ZERO BACK** on the Remote. The Unit automatically detects the direction of the “0:00.00” position and fast forwards (or rewinds) the tape.

3 When the tape reaches the “0:00.00” position, the tape automatically stops.



NOTE

- The zero-back function does not operate during recording and fast forward (or rewind). The function works during the playback, stop and video search modes.

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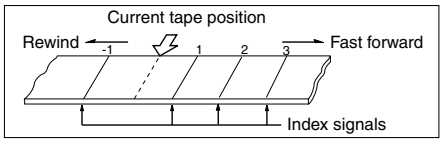
DPSS (Digital Program Search System)/Skip Search

DPSS

With this feature you can quickly locate a desired section of the tape. The DPSS feature makes use of index signals to search for a specified tape segment and begin playback automatically.

Index signal

An index signal is automatically recorded on the tape at the start of ordinary recording, simple recording timer and timer recording.



1 Load a tape containing index signals into the Unit.

2 Select the index number of the desired programme using **DPSS** on the Remote. Search starts immediately. (When a signal is located, the displayed number decreases.)

3 When the selected index signal-encoded section is found, playback begins automatically.



NOTE

- DPSS may not function properly if the index signals are too close together (within 8 minutes of each other).
- DPSS can be cancelled with ▶**PLAY** or ■**STOP**.
- If the tape reaches its end or is rewinded completely before locating the desired index signal, DPSS is cancelled.
- DPSS may not function for damaged or worn tapes.
- The DPSS function cannot be used with tapes that contain no index signals.
- The starting point of a programme may vary slightly.
- DPSS does not operate during the slow, record, fast forward, rewind, timer standby, and timer recording modes, or when there is no cassette loaded.

Skip Search

When **SKIP SEARCH** on the Remote is pressed during playback mode, the Unit will perform a forward video search for a fixed interval of playback time before resuming playback. Depending on how many times the button is pressed, it is possible to set the forward video search time to approx. 30, 60, 90 or 120 seconds of recorded material.

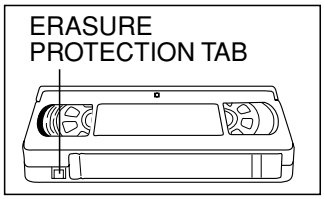
Number of Times Pressed	Forward Video Search Time	(On the VCR Front Panel display)
1 time	Approx. 30 sec. (of playback time)	0:30
2 times	Approx. 60 sec. (of playback time)	1:00
3 times	Approx. 90 sec. (of playback time)	1:30
4 times	Approx. 120 sec. (of playback time)	2:00

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TV Programme Recording

Cassette Erase Protection

A VHS, S-VHS cassette has a removable tab to prevent accidental erasure of recorded material. Removing the tab prevents recording. To record on a video cassette with the tab removed, place adhesive tape over the tab opening.



Recording a TV Programme

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **VCR**.
- Ensure the Video channel is selected on the TV.

1 Insert the cassette, making sure the erasure protection hole is covered.

2 Select the channel position you wish to record with **CH ▲ / ▼**.

3 Select the SP (Standard Play), EP (Extended Play) or LP (Long Play) recording speed with **TAPE SPEED** on the Remote (“SP”, “EP” or “LP” will light up on the VCR Front Panel display.) SP (Standard Play) gives the best picture quality, EP (Extended Play) gives the triple recording time and LP (Long Play) gives the double recording time.



NOTE

- If the COLOUR mode is set to “AUTO” or “MESECAM”, when a SECAM signal is received and the EP mode is selected, the Unit will automatically change the EP mode to LP mode.

4 Press ●**REC**. (If the erasure protection hole is uncovered, the cassette will be ejected.) To pause during recording, press ❚❚**PAUSE/STILL**. To resume recording, press ❚❚**PAUSE/STILL** again.

5 To stop recording, press ■**STOP**.

NOTE

- The pause mode disengages automatically after about 5 minutes, and the Unit enters stop mode.
- To record audio and video from an external source through the AUDIO/VIDEO terminal on the rear of the Unit, press **INPUT SELECT** on the Remote to select the AV channel position situated between the last channel and first channel. (When the AV position is selected, “L1” or “L2” is displayed where a channel position number is usually displayed.)
- If the TV signals are weak and the picture changes to monochrome, set the strict colour mode on the MODE selection screen. (See ”Mode Selection” on page 23.) Normally, the colour mode should be set to “AUTO”.

To Watch Another TV Programme While Recording

After steps 1 to 4 have been completed, select the programme you wish to view using the TV tuner. At the end of the tape, your Unit will automatically stop recording, rewind the tape, eject it and then turn off the power.

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Recording NICAM/IGR Multiplex Broadcasts

This Unit is capable of receiving NICAM multiplex broadcasts (PAL-I, B/G, D/K) and IGR multiplex broadcasts (PAL-B/G, D/K). NICAM multiplex broadcasts will be recorded in stereo/bilingual when the NICAM setting on the OSD's MODE is set to AUTO. For information on how to carry out NICAM setting (See "Mode Selection" on page 23). IGR multiplex broadcasts will be recorded on stereo/bilingual. (The AUTO/OFF setting will not function.) This Unit automatically records on two types of audio track.

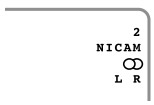
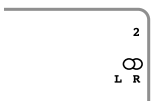
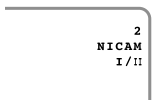
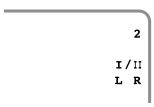
Hi-Fi track:
Special rotary heads will be used to record an audio signal deep in the video track in Hi-Fi. Multiplex broadcasts fall into "stereo" and "bilingual" broadcasts and they will be automatically recorded on their respective tracks.

Normal track:
Conventional analogue audio is always recorded on the normal track (mono sound) regardless of whether your Unit is receiving a multiplex broadcasts or not.

Setting of "NICAM" in MODE / Broadcast	AUTO position		OFF position	
	Hi-Fi track	Normal track	Hi-Fi track	Normal track
Normal sound (mono sound)	mono sound	mono sound	mono sound	mono sound
NICAM (bilingual)	NICAM sound (bilingual)	mono sound	mono sound	mono sound
NICAM (stereo)	NICAM sound (stereo)	mono sound	mono sound	mono sound
IGR (bilingual)	IGR sound (bilingual)	mono sound	IGR sound (bilingual)	mono sound
IGR (stereo)	IGR sound (stereo)	mono sound	IGR sound (stereo)	mono sound

On screen display

- When receiving a stereo multiplex broadcast, ∞ (LR) will be indicated on the on screen display.
- When receiving a bilingual multiplex broadcast, I/II will be displayed on the on screen display.

TYPE \ Broadcast	NICAM	IGR
Stereo		
Bilingual		

NOTE

- There are tapes, though small in number, which have a normal track that has been divided into two tracks. On such tapes, stereo as well as bilingual audio are recorded on the normal track. If such a tape is played back on your Unit, the tape's stereo sound will be reproduced in monaural and its bilingual in both languages combined.
- When a cassette tape on which a NICAM multiplex broadcast has been recorded in stereo or bilingual mode is played back by a VCR that is not a Hi-Fi VCR, only the sound on the normal track will be reproduced.
- When you select "OFF" for NICAM in the OSD MODE, the stereo and bilingual audio of a NICAM multiplex broadcast will be fixed to the normal sound.

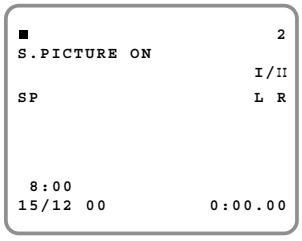
DVNC60W(E)#064_076.pm6 65 01.10.11, 9:30 am

Simple Recording Timer

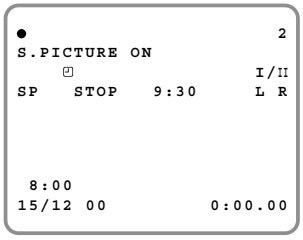
Immediate Recording

This is convenient function when having an unexpected visitor or telephone call.

1 Select the channel position to be recorded with **CH ▲ / ▼**.
(Example) Channel position 2



2 Press **●REC** to enter the normal recording mode. Then, press **●REC** repeatedly to set the desired ending time.
(Example) Ending time 9:30





NOTE

- Each press of **●REC** increases the stop time by 10 minutes.
- Press **■STOP** to terminate recording.

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Programming the Timer with G-CODE System

This Unit has the G-CODE Programming System. By simply inputting the G-CODE number with the number buttons, you can programme your Unit timer recording.
The G-CODE numbers are listed in most newspaper, TV guide, and local cable TV listings.
The timer can be set for automatic recording of up to 8 events over a 365 day period. In addition, each of the events can be set to be recorded on a daily or weekly basis up to the limit of the tape.



Preparation

- Load the cassette, ensuring the erasure protection hole is covered. The Unit power will automatically turn on.
- Check that the clock is displaying the correct time.

1 Press **VCR MENU**. Then select "G-CODE" with ▲ / ▼ and press **SET** to confirm.

```
          MENU
G-CODE
TIMER
MODE
CHANNEL PRESET
CLOCK
LANGUAGE

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

2 Set the G-CODE number with the number buttons (**0** to **9**).

```
→G-CODE NO.    -

  ONCE  WEEKLY DAILY


▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

NOTE

- For the G-CODE number, refer to your newspaper or TV guide.
- Press the **G-CODE** button on the Remote to directly select this screen.

3 If you want to record only once, press **SET** and go to step 4. Otherwise, press ▲ / ▼ to select daily/weekly setting mode and select "DAILY" or "WEEKLY" with ◀ / ▶. Then press **SET** to confirm.

```
 G-CODE NO.    1234

→ ONCE  WEEKLY DAILY


▲ ▼:SELECT   ◀ ▶ :CHANGE
SET:ENTER     MENU:EXIT
```

NOTE

- "ONCE": To record only once.
- "WEEKLY": To record every week at the same time.
- "DAILY": To record every day at the same time.

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4 If you are going to record a programme from a station which does not have the PR number programmed, (“ - - ” is displayed) set that number to be the same as the PR number to which your broadcasting channel is set into. (See Note on page 69.) Use the number buttons (**0** to **9**) or ▲ / ▼. Then press ▶ .
(Ex.: 47)

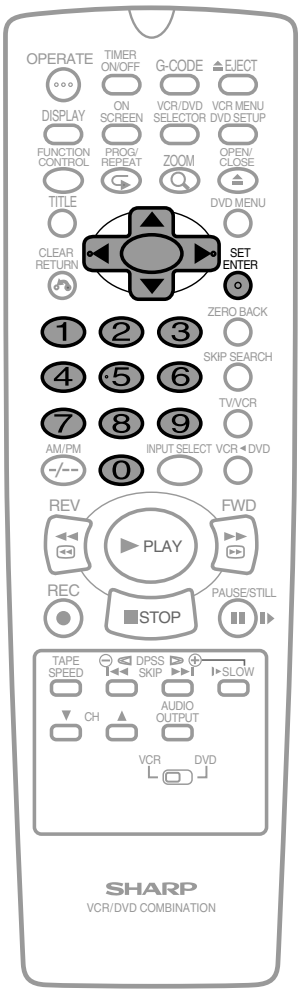
```
                              1/2
DATE   PR START STOP
15/12  47 12:00PM12:30PMSP
--/--  --  -:--  -:--  --
--/--  --  -:--  -:--  --
--/--  --  -:--  -:--  --

PR :PRESET CH
◀ ▶:SELECT    ▲ ▼ :CHANGE
SET:ENTER     MENU:EXIT
```

5 Select the tape speed with ▲ / ▼.

```
                              1/2
DATE   PR START STOP
15/12  47 12:00PM12:30PMSP
--/--  --  -:--  -:--  --
--/--  --  -:--  -:--  --
--/--  --  -:--  -:--  --

SP/LP.EP:TAPE SPEED
◀ ▶:SELECT    ▲ ▼ :CHANGE
SET:ENTER     MENU:EXIT
```



NOTE

- If the COLOUR mode is set to “AUTO” or “MESECAM”, when a SECAM signal is received and the EP mode is selected, the Unit will automatically charge the EP mode to LP mode.
- A tape recorded in the PAL EP (Extended Play) mode can only be playback in a VCR which have its same function (PAL EP (Extended Play) mode).
- For best result, it is advisable to Playback or Recording EP mode with this Unit.

6 Press **SET**.

```
→G-CODE NO.    -

  ONCE  WEEKLY DAILY


▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

NOTE

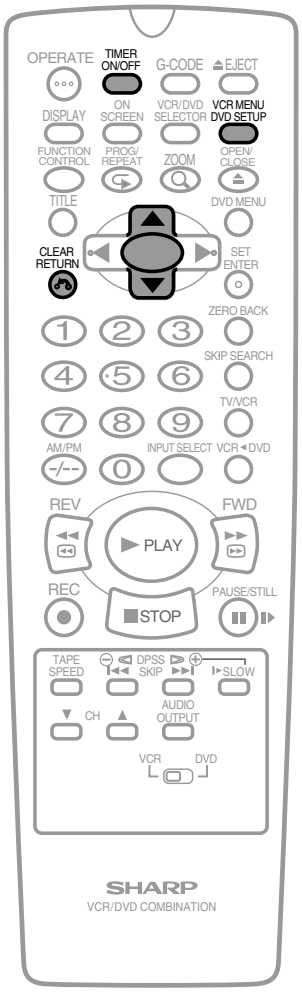
- To programme additional timer settings, press **SET** and repeat steps 2 and 6.

DVNC60W(E)#064_076.pm6 68 01.11.29, 9:51 AM

7 Press **VCR MENU** to return to the normal screen.

8 To set the Unit for automatic timer recording, press **TIMER ON/OFF** and ensure the "⏲" lights on the VCR Front Panel display.





NOTE

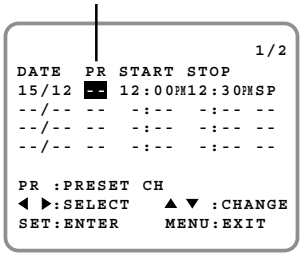
- Please be sure to check that the start and end times of two different programmes do not overlap, as the remote control has been designed to accept the basic individual G-CODE number only. If the recording periods of two programmes overlap, the beginning of the second programme will not be recorded.
- To cancel the programmed G-CODE setting, select the TIMER setting mode on the menu screen. Then select the programme number you wish to cancel with ▲ / ▼ and press **CLEAR**. (See "Cancelling Timer Programmes" on page 74.)

Setting the Programme Number In Step 4

When using the G-CODE system for the first time the Programme number (PR) on the screen shows two dashes and is highlighted white. Set it to be the same as the PR number to which your broadcasting channel is set into.
For instance if you can view CH 47 on programme (PR) 47, set the On screen PR number to 47.

- You need to set this only once.
- If the channels are retuned you need to set the PR numbers again.

PR: Preset Channel



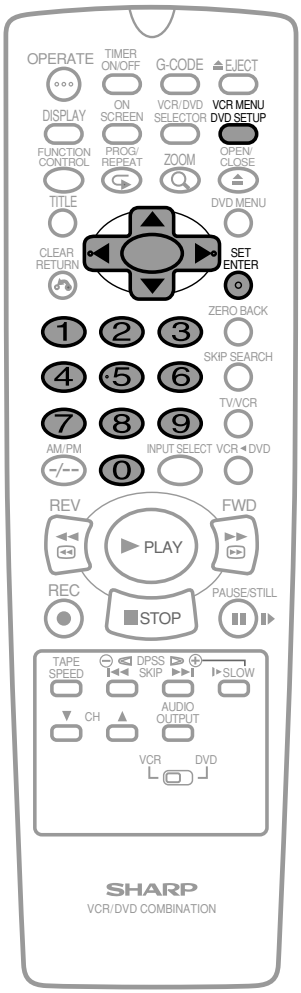
DVNC60W(E)#064_076.pm6 69 01.11.29, 9:51 AM

Recording with the Timer

The timer can be set manually for automatic recording of up to 8 events over a 365 day period.

Preparation

- Load the cassette, ensuring the erasure protection hole is covered. The Unit power will automatically turn on.
- Check that the clock is displaying the correct time. (See “Setting the Clock” on page 33.)
- Be sure that the colour mode is set to “AUTO”. (See “COLOUR” on page 57.)



1 Press **VCR MENU**. Then select “TIMER” with ▲ / ▼ and press **SET**.

```
          MENU
G-CODE
TIMER
MODE
CHANNEL PRESET
CLOCK
LANGUAGE

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

2 Select the timer position with ▲ / ▼ and press **SET**.

- If the timer positions 1 to 4 have already been set, the screen changes to 2/2 (timer positions 5 to 8).

```
                          1/2
DATE  PR START STOP
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
      ▼ ▼ 2/2 ▼ ▼

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

3 Set the date for timer recording with the number buttons (**0** to **9**) or ▲ / ▼ on the Remote and press ▶.

- First set the “day” digits and then “month”. If there is only one “day” or one “month” digit, enter a 0 first.

```
                          1/2
DATE  PR START STOP
15/12 --  -:--  -:-- SP
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --

DATE :DAY/MONTH
◀ ▶:SELECT    ▲ ▼ :CHANGE
SET:ENTER     MENU:EXIT
```

“SP” will be displayed automatically.

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4 If you want to record only once, press ▶ and go to step 5. Otherwise, select “D (DAILY)” to record at the same time each day or “W (WEEKLY)” to record at the same time each week with ▲ / ▼, and then pressing ▶.

```
                          1/2
DATE  PR START  STOP
15/12 --  -:--  -:-- SP
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
 :ONCE
W:WEEKLY      D:DAILY
◀ ▶:SELECT    ▲ ▼ :CHANGE
SET:ENTER     MENU:EXIT
```

5 Set the channel number using the number buttons (**0** to **9**) or ▲ / ▼ and press ▶.

- To record audio and video from an external source through an AUDIO/VIDEO terminal on the Unit. Press ▲ / ▼ to select an AV channel.
  (When an AV position is selected, “L1” or “L2” is displayed where a channel position number is usually displayed.)

```
                          1/2
DATE  PR START  STOP
15/12 47  -:--  -:-- SP
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
```



NOTE

- ▲ / ▼ can also be used to set the date and time instead of the number buttons (**0** to **9**).
- Press 0 first if the day, month, hour or minute is a single digit.

6 Set the start time with the number buttons (**0** to **9**) or ▲ / ▼ and press ▶.

```
                          1/2
DATE  PR START  STOP
15/12 47 12:00PM -:-- SP
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
```

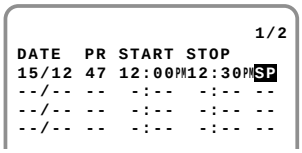
When the clock is set to 24H mode, AM/PM indicator will not appear

7 Set the stop time with the number buttons (**0** to **9**) or ▲ / ▼ and press ▶.

```
                          1/2
DATE  PR START  STOP
15/12 47 12:00PM12:30PMSP
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
```


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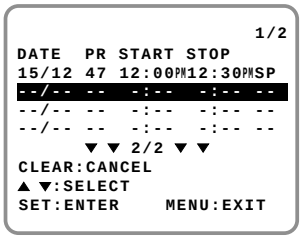
8 Select the speed with ▲ / ▼.



NOTE

- SP: Standard Play, LP: Long Play, EP: Extended Play

9 Press **SET**. To programme additional timer settings, repeat steps 3 through 8.



10 Press **VCR MENU** to return to the normal screen.

11 To set the Unit for automatic timer recording, press **TIMER ON/OFF** and ensure the "◰" lights on the VCR Front Panel display.





NOTE

- If the video cassette runs out before recording all the programmes, your Unit will stop, eject the cassette, and shut off automatically.
- If power is interrupted for more than 60 minutes (power failure, etc.), all timer settings will be cancelled.
- If **TIMER ON/OFF** is pressed when there is no cassette loaded, "◰" flashes for 5 seconds, indicating that timer recording is not possible.
- If **TIMER ON/OFF** is pressed while a cassette with an uncovered erasure protection hole is loaded, "◰" flashes and the cassette is ejected.
- When "◰" is lit, regular VCR operation, clock setting and setting/cancelling/confirming timer positions are not possible. For regular VCR operation, clock setting and setting/cancelling/confirming timer positions, press **TIMER ON/OFF** to disengage the timer ("◰" disappears), and then turn on your Unit.
- During timer recording, the timer cannot be set.
- To terminate timer recording, press ■**STOP** during timer recording.
- If the same time is input for the start time and the stop time, the timer setting will be cancelled.

DVNC60W(E)#064_076.pm6 72 01.11.14, 10:16 AM

Confirming Timer Programmes

You can see on the On Screen Display a list of all timer programmes that are already set.

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **VCR** and select the video channel on the TV.

1 Press **VCR MENU**. (If the " ⏎ " indicator on the VCR Front Panel display is lit, cancel the timer standby mode with **TIMER ON/OFF** and then turn on the power.)

2 Select "TIMER" with ▲ / ▼ and then press **SET** to confirm .

```
          MENU
G-CODE
TIMER
MODE
CHANNEL PRESET
CLOCK
LANGUAGE

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

3 The screen for confirming programmes that have been set will appear.

```
                          1/2
DATE  PR START STOP
15/12 47 12:00PM12:30PMSP
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
--/-- --  -:--  -:-- --
      ▼ ▼ 2/2 ▼ ▼

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

- Check the information displayed.
- If you want to correct the data, select the programme to be changed with ▲ / ▼ and press **SET**. Correct the setting as described on pages 70, 71 and 72.

NOTE

- After the data is changed, press **SET** at the applicable tape-speed position at right.

4 Press **VCR MENU** to return to the normal screen.

- After checking or correcting the programme contents, press **TIMER ON/OFF** to enter the Timer Standby mode.



DVNC60W(E)#064_076.pm6 73 01.10.11, 9:31 am

Cancelling Timer Programmes

Perform the following procedure to cancel timer programmes that have already been set.

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **VCR** and select the video channel on the TV.

1 Press **VCR MENU**. (If the " ⏎ " indicator on the VCR Front Panel display is lit, cancel the timer standby mode with **TIMER ON/OFF** and then turn on the power.)

2 Select "TIMER" with ▲ / ▼ and then press **SET** to confirm .

```
          MENU
G-CODE
TIMER
MODE
CHANNEL PRESET
CLOCK
LANGUAGE

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

3 The screen for confirming programmes that have been set will appear.

- Select the programme you wish to cancel with ▲ / ▼. (The selected programme will appear highlighted.)

```
                          1/2
DATE   PR START STOP
15/12  48  12:00PM12:30PMSP
--/--  --   -:--   -:--  --
--/--  --   -:--   -:--  --
--/--  --   -:--   -:--  --
       ▼ ▼ 2/2 ▼ ▼

▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

4 Double-check that it is the programme you wish to cancel, and press **CLEAR**. It will be cleared on the screen.

```
      ▲ ▲ 1/2 ▲ ▲     2/2
DATE   PR START STOP
--/--  --   -:--   -:--  --
--/--  --   -:--   -:--  --
--/--  --   -:--   -:--  --
--/--  --   -:--   -:--  --


▲ ▼:SELECT
SET:ENTER     MENU:EXIT
```

5 Press **VCR MENU** to return to the normal screen.

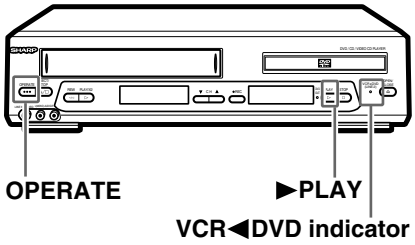
- If there are still some programmes to be set, press **TIMER ON/OFF** to enter the Timer Standby mode.



DVNC60W(E)#064_076.pm6 74 01.10.25, 1:56 PM

Recording a DVD Disc onto a Video Cassette

Use the following procedure to record the images and sounds on a DVD disc onto a video cassette.



Recording a DVD disc onto a Video cassette (Tape Editing mode)

Preparation

TV

- Turn on the TV and switch to the external “VIDEO” or “AV” channel.

This Unit

- Press **OPERATE**.
- Move the **VCR/DVD CHANGE Switch** on the Remote to **VCR**.



1 Press **VCR ◀ DVD**.
- The VCR ◀ DVD indicator lights up.
- The channel automatically changes to “**LINE 2**”.

2 Insert both the DVD disc and the video cassette for recording.

3 Move the **VCR/DVD CHANGE Switch** on the Remote to **DVD**.

4 Press **ON SCREEN** to turn off the DVD on screen display (See page 51).

5 Press **▶PLAY**.
- The disc start playback.

NOTE

- In DVD to VCR recording mode, some discs cannot be recorded:
  ① Discs with copy guard function
  ② NTSC format disc

DVNC60W(E)#064_076.pm6 75 01.10.19, 4:46 PM

6 Press ●**REC**.
- The images on the DVD disc are recorded onto the VCR cassette.



- When the VCR is in stop mode, press **INPUT SELECT**.
  - The channel returns to the previously received channel.

  - Each time **INPUT SELECT** is pressed, the channel changes in the following sequence.
    Received Channel ⟶ L1 ⟶ L2

- The **VCR/DVD SELECTOR** is fixed to VCR in the Tape Editing mode (VCR◀ DVD indicator blinks).
- Operate the **VCR/DVD SELECTOR** after pressing **VCR◀ DVD**, and after the Tape Editing mode has been cleared (VCR◀ DVD indicator stops blinking).

NOTE
- The following are not signs of trouble
  ① The brightness of images from regular DVD disc playback and from discs played in Tape Editing mode might vary.
  ② The discs playing time and the Real time counter slightly vary when recording.
- The DVD/VCR output jacks become VCR fixed.
- The following operations cancel the DVD/VCR output and return to the regular external input.
  ① Programming the timer using "**LINE 2**".
  ② Setting the recording ending time during Pause.
  ③ Turning **OPERATE** on or off after entering the Tape Editing mode.
- Copy protected DVD discs cannot be recorded (The image will be distorted, when ●**REC** is pressed).
- If the DVD on screen display is "ON" while recording, the display will also be recorded.

The recordings, which you make from TV/radio broadcasts or audio sources (such as records) are for your own private use, and cannot be used without prior permission or consent of the author.

DVNC60W(E)#064_076.pm6 76 01.11.14, 10:17 AM

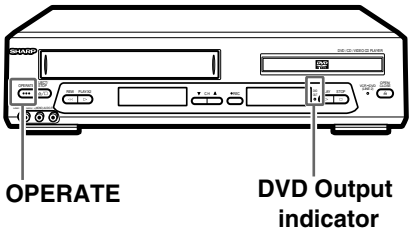
Watching the DVD

Preparing to Use The DVD 78
When connecting the Unit and the TV using the DVD output jack 78
When connecting the Unit and the TV using only the DVD/VCR shared output jack 78
Playback 79
Basic Play 79
Fast Forward/Fast Reverse 80
Slow-Motion Play 80
Still/Pause 81
Frame Advance 81
Skip (Forward/Reverse) 81
Zooming an Image 82
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Preparing to Use The DVD

The following steps are necessary to display the DVD screen on the TV.



When connecting the Unit and the TV using the DVD output jack

TV

Turn on the TV and switch the TV channel to the external input "VIDEO" or "AV" channel connected to DVD output jack.

This Unit

1 Press **OPERATE**.
- The start up screen is displayed on the TV screen.



2 Move **VCR/DVD CHANGE Switch** on the remote control to **DVD**.



When connecting the Unit and the TV using only the DVD/VCR shared output jack

TV

Turn on the TV and switch the TV channel to the external input "VIDEO" or "AV" channel connected to DVD/VCR shared output jack.

This Unit

1 Press **OPERATE**.

2 Move **VCR/DVD CHANGE Switch** on the remote control to **DVD**.

3 Press **VCR/DVD SELECTOR** to enter the **DVD** mode.
- The DVD Output indicator will light up and the start up screen will be displayed on the TV screen.

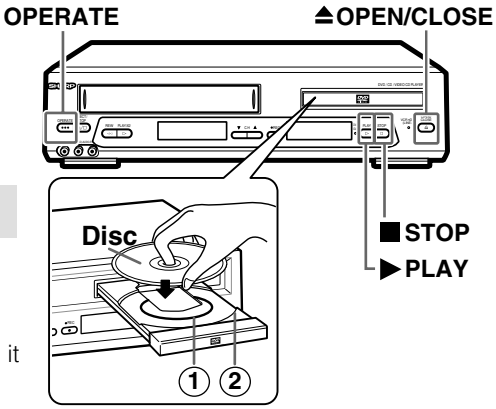


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Playback DVD VIDEO CD C D

Preparation

- Press **OPERATE**. Then move the **VCR/DVD CHANGE Switch** to **DVD**.



DVD VIDEO CD C D

Basic Play

1 Press **▲OPEN/CLOSE** to open the disc tray.

2 Place a disc onto the tray.

- Hold the disc without touching either of its surfaces, position it with the printed title side facing up, align it with the guides, and place it in its proper position.
  ① 8 cm (3") disc ② 12 cm (5") disc
- **Do not stack discs in the tray. This can damage the Unit and the discs.**

3 Press **▲ OPEN/CLOSE** to close the disc tray.

4 Press **▶PLAY**.

- Playback image appears on the screen. (No image is shown for audio CDs.)
- Some discs are played back automatically without pressing **▶ PLAY**.
- Some discs prompt you to select a title. In this case, select a title you want to view.

5 Press **■STOP** to stop playback.



Playing VIDEO CDs with Playback Control (PBC)

- Pressing **▶ PLAY** begins PBC playback. Time display is not shown for some discs.
- If you specify the track number to be played (with playback stopped) and press **▶ PLAY**, normal playback (not PBC playback) begins.

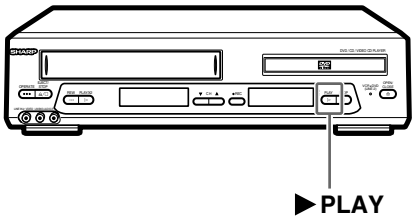
NOTE

- If the disc is loaded upside down or is damaged, "– – – – –" appears on the DVD Front Panel display and the disc tray slides out.
- If you attempt to play a DVD disc with the wrong region code, "⃠ REGION CODE ERROR" appears on the TV screen and the disc tray slides out.

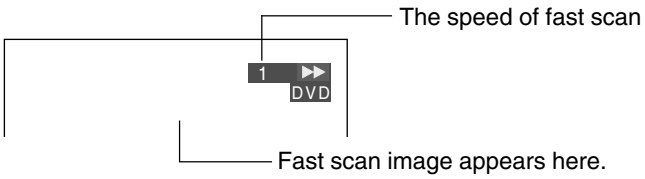
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DVD | VIDEO CD | CD

Fast Forward/Fast Reverse



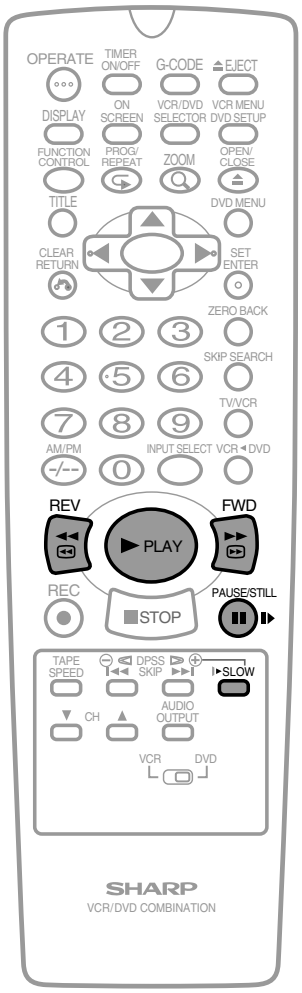
1 Press **FWD▶▶** or **◀◀REV** during playback.
- The disc begins fast scan at ×2 speed (1).



- Three speeds are available for DVD, and two speeds are available for VIDEO CDs and audio CDs. Each time **FWD▶▶** or **◀◀REV** is pressed, the speed of fast scan changes in the following sequence:
  (DVD)
  1 (about ×2) ⟶ 2 (about ×8) ⟶ 3 (about ×32)

2 Press **▶PLAY** when you reach the desired point.

NOTE
- On some discs, the fast scan function is disabled.
- On DVD video discs and VIDEO CDs, audio and subtitles are not played back during the fast scan playback.
- With a DVD video disc and VIDEO CDs, you cannot search past a title. Playback starts from the beginning of the title.
- With a VIDEO CD and Audio CD, the search speed toggles between 1 (about ×2) and 2 (about ×8) when you press **FWD▶▶** or **◀◀REV**.
- Audio is not played back during fast scan.



DVD | VIDEO CD

Slow-Motion Play

1 Press **I▸SLOW** in the play mode or still mode.

- Three speeds are available. Each time **I▸SLOW** is pressed, the speed of slow-motion playback changes in the following sequence:
  (DVD)
  1 (about ×1/2) ⟶ 2 (about ×1/8) ⟶ 3 (about ×1/16)

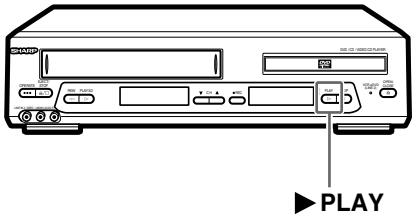
2 Press **▶PLAY** to return to the normal playback or press **❚❚PAUSE/STILL** to return to the still picture mode.

NOTE
- On some discs, the slow-motion playback functions are disabled.
- Slow-motion playback is disabled on Audio CDs.

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DVD | VIDEO C D | C D

Still/Pause



1 Press ❚❚**PAUSE/STILL** during playback.

2 If you press ▶**PLAY** while paused (PAUSE/STILL), normal playback resumes.

DVD | VIDEO C D

Frame Advance

1 Press ❚❚**PAUSE/STILL** during playback.
- The playback is paused.
- The disc goes forward by one frame each time ❚❚**PAUSE/STILL** is pressed.

2 Press ▶**PLAY** to return to the normal playback.

DVD | VIDEO C D | C D

Skip (Forward/Reverse)

While you are playing a disc, this function jumps to the beginning of the next chapter/track (Forward) or the current chapter/track (Reverse) and automatically starts playing that chapter/track.

1 While a disc is playing, press **SKIP▶▶|** or **|◀◀SKIP**.
- Playback skips forwards one chapter/track for each time **SKIP▶▶|** is pressed. When the last chapter/track is reached, playback returns to the start of the disc.
- If you press **|◀◀SKIP** and playback begins, and you then press **|◀◀SKIP** again within 3 seconds, playback returns to the beginning of the previous chapter/track.



NOTE
- The frame advance playback functions are disabled for Audio CDs.
- On some discs, the skip functions are disabled.
- The playback image is not displayed during the skip. It resumes during playback following the skip.
- The current track number and playback time are not shown on the screen for VIDEO CDs with PBC recorded (most version 2.0 discs).

When VIDEO CDs are played in PBC mode:
- Pressing **SKIP▶▶|** causes the disc to move to the NEXT position.
- Pressing **|◀◀SKIP** causes the disc to move to the PREVIOUS position.

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DVD

Zooming an Image

1 While a disc is playing, press **ZOOM**.

- Each press of **ZOOM** cycles through the zoom settings in the following sequence:

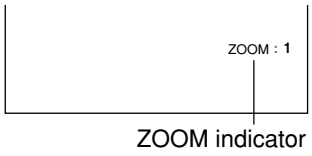
  ZOOM 1 (1.2×) → ZOOM 2 (1.5×) → ZOOM 3 (2.0×) → Off.

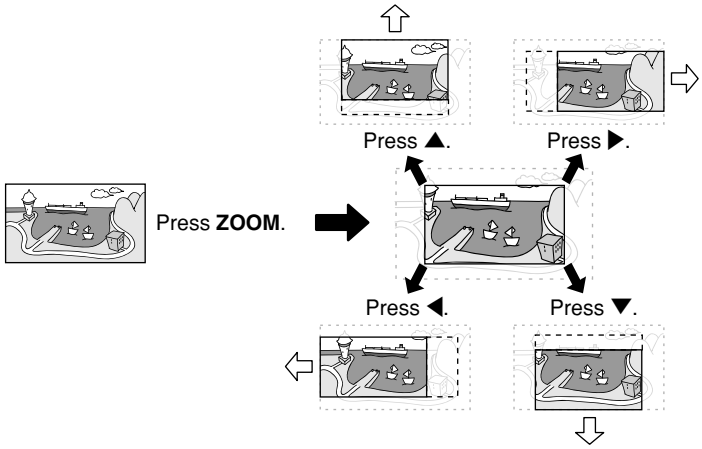
- When playing a Pan & Scan disc while 4 : 3 PS is selected as the "TV MODE" setting on the "TV MODE SETUP" screen, each press of **ZOOM** cycles through zoom settings in the following sequence:

  ZOOM 1 (1.2×) → ZOOM 2 (1.5×) → Off.

  Note that all of the above zoom factors are approximate only.

- While an image is zoomed, you can use ▲, ▼, ◀ and ▶ to shift the view and display the part you want.







- The ZOOM indicator changes from white to red to let you know when you are trying to perform an illegal shift of view. If you are already at the far left side of the image, for example, the zoom indicator will become red when you press ◀.

NOTE

- An image may become distorted when zoomed.
- You can cancel the zoom operation by pressing ■**STOP**, **DVD MENU**, **TITLE**, **FWD**▶▶, ◀◀**REV** or **FUNCTION CONTROL**.
- The setting screen is cleared automatically whenever you display a DVD screen that enables you to change the scene by pressing ▲, ▼, ◀ or ▶.
- 1.2×, 1.5× and 2.0× zoom are approximate magnification values only. The actual image may be somewhat larger or smaller depending on the recording system (NTSC or PAL) that was used to record the disc.
- Subtitle cannot be zoomed.

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Playing MP3 Discs

This Unit is able to play CD-R or CD-RW discs recorded in MP3 format.

Regarding MP3 discs

- MP3 files are audio data compressed in MPEG1 Audio layer 3 file format. “MP3 files” have “.mp3” as extensions.
- Some files that have “.mp3” extensions or files that have not been recorded in MP3 format will produce noise or cannot be played.
- Some discs cannot be played depending on the actual CD-R/CD-RW disc condition, the recording equipment and the disc’s recording.
- Data on the CD-R or CD-RW disc, which has not been recorded in MP3 format, audio tracks or has been recorded in other file formats except MP3, cannot be played.

Playing MP3 discs

- Discs that have more than 1000 folders and files in total cannot be played.
- Some MP3 files are not played in the order they were recorded.
- The number of layers, which can be recognized, including files and folders, is maximum 8.
- Only the first session of a multi-session disc can be played.
- When both audio tracks and MP3 files are recorded on a disc, audio tracks will be played.
- Depending on the folder tree, reading MP3 files can take time.
  (The more files there are, the longer the reading time. Therefore it is recommended to lower the number of folders before recording.)
- Folder or track (file) names are limited to 8 characters. The folder / file names are displayed in half-size, capital letters or half-size numbers. Folder or track (file) names that go over 8 characters will be abbreviated.
- Depending on the character or symbol, MP3 folders or files have their names replaced, for example: SHARP_1 → SHARPO1, SHARP˜1 → SHARPN1, SHARP-1 → SHARPM1.
- The playing time may not be correctly displayed during MP3 file playback.
- It is recommended to record data at a lower speed as data recorded at fast speed can produce noise and may not be able to be played.

⚠ CAUTION

- It is impossible to make a digital copy by using a digital audio recording device which outputs sound from discs in MP3 format through the coaxial digital output jack of this Unit.

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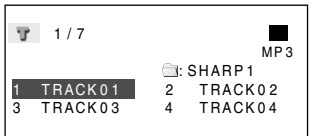
To play MP3 discs

1 Press **OPERATE** to turn on this Unit.

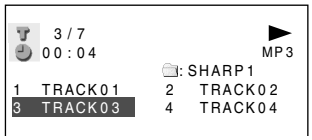
2 Load the MP3 recorded CD-R or the CD-RW.
- The folder selection screen will be displayed as well as the "SELECT/ENTER button".



3 Select the folder you want to play by using ▲, ▼, ◀ or ▶ and press **ENTER**.
- The file (music title) in the folder is displayed on the file selection screen.



4 Select the file (music title) you want to play by using ▲, ▼, ◀ or ▶ and press **ENTER**.
- The chosen file (music title) will be played in sequence.
- When playing starts, the operation button will be displayed.



NOTE
- You can also use the number buttons (**0** to **9**) to select the folder/file in steps 3 and 4.

5 Press ■**STOP** to stop playback.



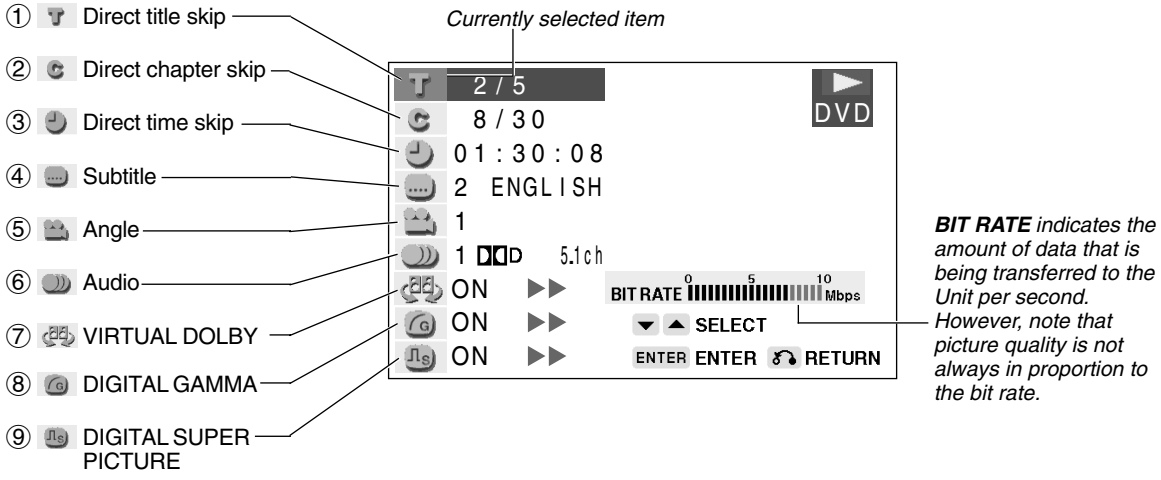
While the MP3 disc is playing
- Fast Forward, Rewind and Time Search are disabled.
- Programmed playback is disabled.
- It is possible to repeat one track or the entire disc.

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About the Function Control Screen DVD

Using FUNCTION CONTROL, you can check at a glance and change the current settings of the following items: SUBTITLE, ANGLE, AUDIO, VIRTUAL DOLBY, DIGITAL GAMMA and DIGITAL SUPER PICTURE. FUNCTION CONTROL also allows you three ways of direct skips (title,chapter and time).

- While the disc is playing, press **FUNCTION CONTROL** to display the screen shown below.
- Pressing ▲ or ▼ changes the currently selected item.
- Numbers in ▬ refer to the pages where the setting procedures are described.



① Direct title skip 86

- The number of the title currently played back is displayed.
- You can skip directly to the desired title.

② Direct chapter skip 86

- The number of the chapter currently played back is displayed.
- You can skip directly to the desired chapter.

③ Direct time skip 86

- Elapsed time from the beginning of the disc is displayed.
- You can skip directly to the point from which you want to start playback.

④ Subtitle language setting 87

- The subtitle number and language currently selected are displayed. (When a disc with only one subtitle is played back, xx is displayed.)
- You can select the desired subtitle language.

⑤ Angle setting 88

- The current angle is displayed. (When a disc with only one angle is played back, xx is displayed.)
- You can select the desired angle.

⑥ Audio setting 89

- The type of audio currently selected is displayed.
- You can select the desired type of audio.

⑦ VIRTUAL DOLBY setting 90

- This function provides rich surround sound by downmixing Dolby Digital 5.1 channel and Dolby Surround (Pro Logic) to 2-channel audio or TV.
- You can toggle the setting between “ON” and “OFF”, and change the level.
- When “COMPRESSION” is “ON”, this function is disabled, which is indicated by xx. To use the VIRTUAL DOLBY function, set the “COMPRESSION” to “OFF” (see page 45).

⑧ DIGITAL GAMMA setting 91

- You can make the entire image easier to see by brightening the darker and obscure portions.
- You can toggle the setting between “ON” and “OFF”, and change the level.

⑨ DIGITAL SUPER PICTURE setting 92

- This function enhances the fine detail of the image and outlines of the objects it contains by reducing the amount of picture noise.
- You can toggle the setting between “ON” and “OFF”, and change the level.

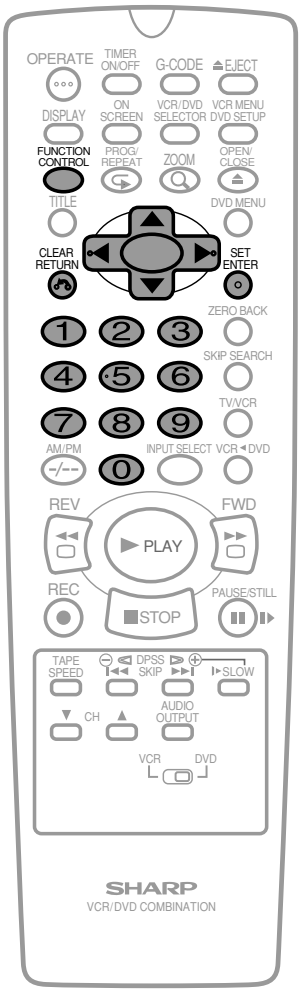
NOTE

- In FUNCTION CONTROL mode, you can return to the previous setting screen by pressing **RETURN** or **FUNCTION CONTROL**.
- You can cancel the FUNCTION CONTROL mode by pressing ■**STOP**, **DVD MENU**, **TITLE**, **FWD**▶▶, ◀◀**REV** or **ZOOM**.
- The setting screen is cleared automatically whenever you display a DVD screen that prompts you to change the scene by pressing ▲, ▼, ◀, or ▶.

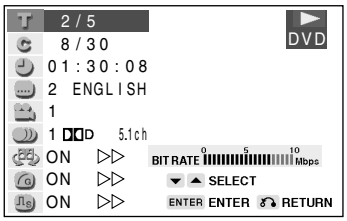
DVNC60W(E)#085_092.pm6 85 01.11.12, 2:59 pm

Direct skip (title/chapter/time)

Use the following procedure to perform Direct title skip, Direct chapter skip, or Direct time skip.

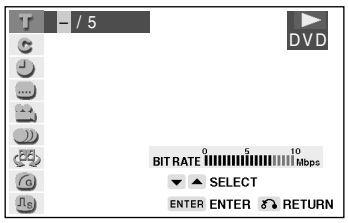


1 Press **FUNCTION CONTROL** during playback.
- The FUNCTION CONTROL screen appears.



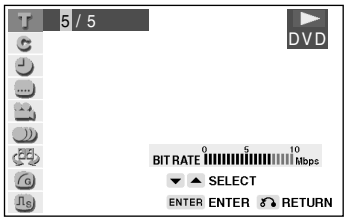
2 Use ▲ or ▼ to select T and then press **ENTER**.

(Example) Direct title skip



3 Use number buttons (**0** to **9**) to input the title number to which you want to skip.
- You can also use ▲ or ▼ to input the title number.
- When you specify the time for the direct time skip, use ◀ or ▶ to move the highlighting to the next or previous digit .

(Example) Entering title 5



4 Press **ENTER**.
- The played back image changes to the beginning of the specified title.
- You can exit the FUNCTION CONTROL screen by pressing **RETURN** or **FUNCTION CONTROL**.

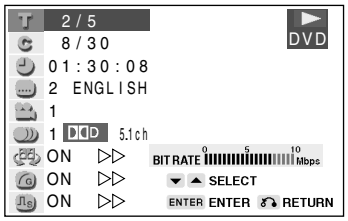
NOTE
- The number of titles, chapters or times you can input depends on that of the titles, chapters or times recorded on a disc you play.

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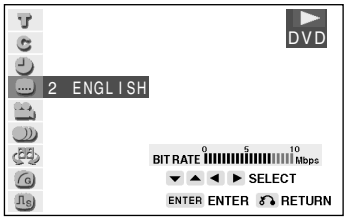
Subtitle language setting

Use the following procedure to perform the Subtitle language setting.

1 Press **FUNCTION CONTROL** during playback.
- The FUNCTION CONTROL screen appears.

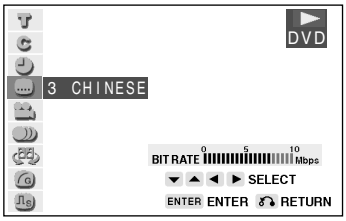


2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to select the subtitle language you want to use.
- You can set the subtitle setting to “OFF”.
- You can also toggle the setting between “ON” and “OFF” by pressing ◀ or ▶.

(Example) Selecting “3 CHINESE”



4 Press **ENTER** to confirm the setting.
- You can exit the FUNCTION CONTROL screen by pressing **RETURN** or **FUNCTION CONTROL**.



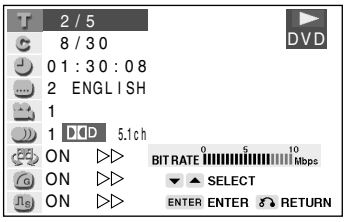
NOTE
- This function can only be used for discs on which subtitles have been recorded in ENGLISH or CHINESE.
- Some DVD discs are marked “Forced Display”, indicating that the subtitling cannot be suppressed. With such discs, the subtitles will be displayed even when you select “ OFF” display. This does not indicate a fault with this Unit.
- If no subtitles are recorded on the disc, xx is displayed.

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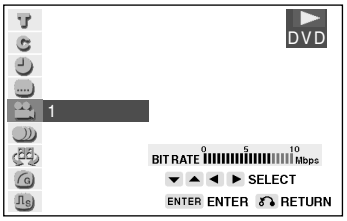
Angle setting

You can change the angle of view when playing a DVD video disc that contains scenes recorded from multiple angles.
Use the following procedure to perform the Angle setting.

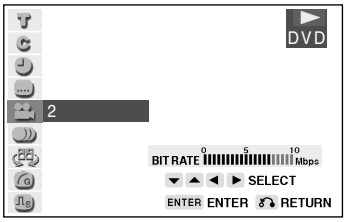
1 Press **FUNCTION CONTROL** during playback.
- The FUNCTION CONTROL screen appears.



2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to select the angle number you want.
- The number of recorded angles differs depending on the disc used.



4 Press **ENTER** to confirm the setting.
- You can exit the FUNCTION CONTROL screen by pressing **RETURN** or **FUNCTION CONTROL**.



NOTE
- This function can only be used for discs on which scenes shot from multiple angles have been recorded.
- If no angles are recorded on the disc, xx is displayed.

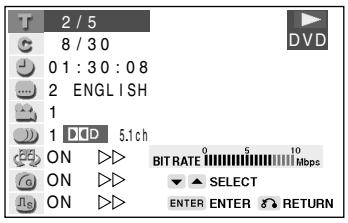
DVNC60W(E)#085_092.pm6 88 01.10.11, 9:35 am

Audio setting

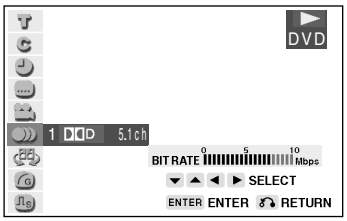
A number of different methods are used to record audio onto a DVD video disc, including multi-channels (used for voiceovers in other languages), Dolby Digital (5.1ch), DTS, and Linear PCM. This Unit provides a number of different audio modes from which you can choose to suit the type of disc you are playing.
Use the following procedure to perform the Audio setting.



1 Press **FUNCTION CONTROL** during playback.
- The FUNCTION CONTROL screen appears.

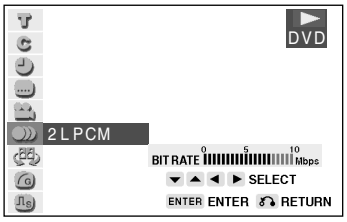


2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to select the audio format you want to use.
- See page 45 for details about the types of audio format.
- When playing an Audio CD, the audio playback changes in the following sequence:

L+R → L → R



4 Press **ENTER** to confirm the setting.
- You can exit the FUNCTION CONTROL screen by pressing **RETURN** or **FUNCTION CONTROL**.

NOTE
- This function can only be used for discs on which the sound has been recorded in multiple formats.
- To playback VIDEO CDs recorded with DTS format, audio mode should be set to “L+R”. The Digital Out signal cannot be output correctly if audio mode is set to “L” or “R”.
- With certain types of discs, you can change the audio using the disc menu. (See page 45.)
- A DTS digital surround decoder is required to listen to DTS audio.

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VIRTUAL DOLBY (QSURROUND) setting

This function allows you to enjoy a “surround sound” effect when you are using an analogue connection (using LINE 1 OUT on this Unit) to 2-channel audio equipment (TV, etc.).

Preparation

To use the VIRTUAL DOLBY (QSURROUND) function

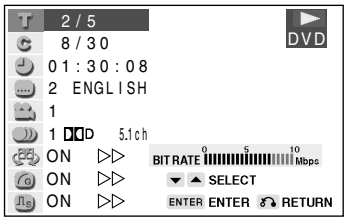
- Set the “COMPRESSION” setting in “AUDIO SETUP” to “OFF” (see page 45).

Refer to the table below about the types of audio format with which VIRTUAL DOLBY (QSURROUND) works.

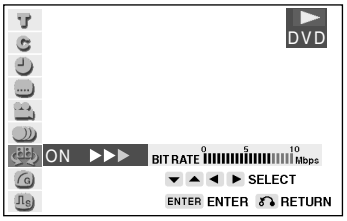
Types of audio recorded on the disc			
Dolby Digital	Dolby Pro Logic	Dolby Digital 2ch/Linear PCM	MPEG Audio Ver. 2.0/ DTS
○	○	×	×

1 Press **FUNCTION CONTROL** during playback.

- The FUNCTION CONTROL screen appears.

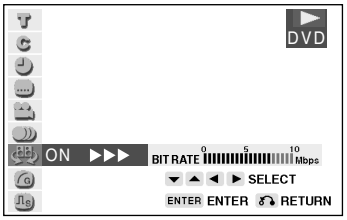


2 Use ▲ or ▼ to select and then press **ENTER**.



3 Press ▲ or ▼ to toggle VIRTUAL DOLBY between “ON” and “OFF”.

4 While “ON” is selected, use ◀ or ▶ to change the level setting.



5 Press **ENTER** to confirm the setting.

- You can exit the FUNCTION CONTROL screen by pressing **RETURN** or **FUNCTION CONTROL**.



NOTE

- VIRTUAL DOLBY (QSURROUND) does not operate on Audio CDs.
- VIRTUAL DOLBY (QSURROUND) does not operate when you set the “COMPRESSION” setting in “AUDIO SETUP” to “ON”.
- VIRTUAL DOLBY (QSURROUND) does not operate when you are using a Digital connection.
- QSURROUND™ is a trademark of QSound Labs, Inc.
- VIRTUAL DOLBY (QSURROUND) does not operate when you play back a disc recorded using Linear PCM or DTS format.

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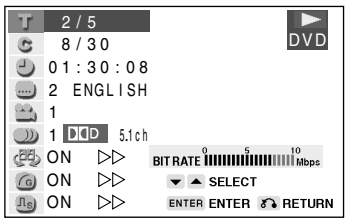
DIGITAL GAMMA setting

DIGITAL GAMMA is a digital image quality enhancement function that gives a richer image by brightening the darker and more obscure portions of the image without altering the brightness of the brighter portions, thereby making the entire image easier to see. Three digital gamma settings are available to allow for differences in the images played and in brightness of the room.

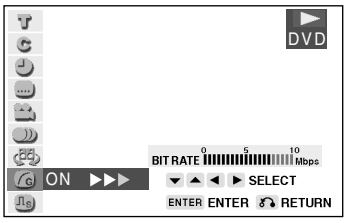


1 Press **FUNCTION CONTROL** during playback.

- The FUNCTION CONTROL screen appears.



2 Use ▲ or ▼ to select and then press **ENTER**.

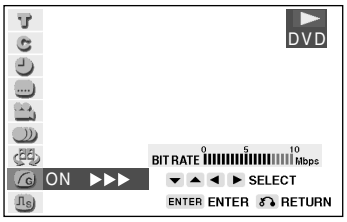


3 Press ▲ or ▼ to toggle DIGITAL GAMMA between “ON” and “OFF”.

4 While “ ON” is displayed, press ◀ or ▶.

- The level selection indicator that shows the current level appears.
- If no button is pressed within 10 seconds, the level selection indicator goes off.

5 Use ◀ or ▶ to change the level.



6 Press **ENTER** to confirm the setting.

- If no change is made for 10 seconds after the level is set, the level indicator goes off.
- You can exit the FUNCTION CONTROL screen by pressing **RETURN** or **FUNCTION CONTROL**.

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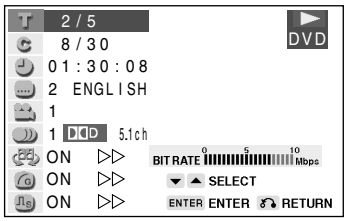
DIGITAL SUPER PICTURE setting

DIGITAL SUPER PICTURE is a digital image quality enhancement function that gives a clearer image by sharpening the details and outlines in the image and reducing the amount of picture noise. The DIGITAL SUPER PICTURE setting can be varied as desired.

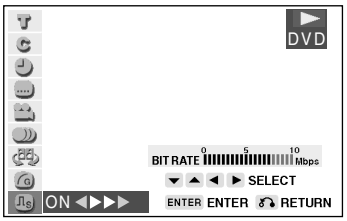


1 Press **FUNCTION CONTROL** during playback.

- The FUNCTION CONTROL screen appears.



2 Use ▲ or ▼ to select and then press **ENTER**.



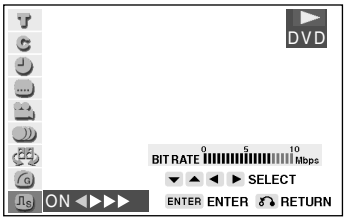
3 Press ▲ or ▼ to toggle DIGITAL SUPER PICTURE between "ON" and "OFF".

4 While " ON" is displayed, press ◀ or ▶.

- The level selection indicator that shows the current level appears.
- If no button is pressed within 10 seconds, the level selection indicator goes off.

5 Use ◀ or ▶ to change the level.

- To see more detail in very intricate images, set this setting to ▷▷▷.
- To obtain a subtle softening of the outlines of the displayed images, set this setting to ◁.



6 Press **ENTER** to confirm the setting.

- If no change is made for 10 seconds after the level is set, the level indicator goes off.
- You can exit the FUNCTION CONTROL screen by pressing **RETURN** or **FUNCTION CONTROL**.

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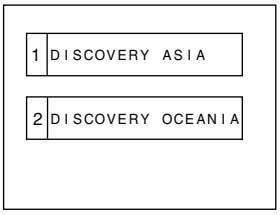
Direct Selection of Scenes

DVD

Selecting Scenes by Title Number

1 Press **TITLE** to show the title screen.

(Example)



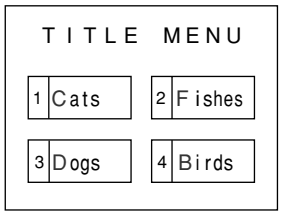
2 Use the number buttons (**0** to **9**) to enter the desired title, or ▲, ▼, ▶ or ◀ to highlight the desired title.

3 When you press **ENTER** or ▶ **PLAY**, the title specified in step 2 starts playing.

Selecting Scenes from the Menu Screen

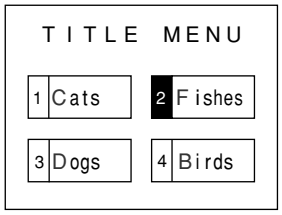
1 Press **DVD MENU** to show the menu screen.

(Example)



2 Use the number buttons (**0** to **9**) or ▲, ▼, ▶ or ◀ to highlight the desired title.

(Example) Title 2 selected.



3 When you press **ENTER** or ▶ **PLAY**, title 2 starts playing.



NOTE

- These functions only operate on DVD discs that have a title or menu screen.
- Languages not provided on the disc are not displayed.

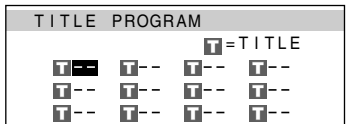
Programmed Playback

The three types of programmed playback provided by this Unit are title programmed playback (DVD discs), chapter programmed playback (DVD discs) and track programmed playback (VIDEO CD and audio CD discs).

DVD

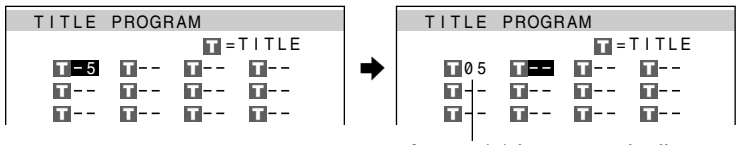
Title Programmed Playback

1 Press **PROG** while the disc is stopped.
- The "TITLE PROGRAM" screen appears.



2 Use the number buttons (**0** to **9**) to enter the title numbers in -- and then press ▶. (The highlight moves to the right (next field).)
- If the entered title number does not exist on the disc, the number is ignored when ▶ is pressed.

(Example) Title 5 entered.



A zero (0) is automatically inserted before the first digit.

3 Repeat step 2 for each of the titles that you want to play as part of the programme.
- If you enter two or more digits, only the last two digits are displayed.
- If you enter the wrong number, press ◀ and re-enter the number.

4 Press ▶**PLAY** to begin playing the programmed titles. (Press this button while the "TITLE PROGRAM" screen is displayed.)
- PROGRAM indicator lights on the DVD Front Panel display.



5 Press ■**STOP** to stop programmed playback.

NOTE
- On some discs, the programmed playback is disabled.
- Up to 20 titles can be programmed.
- To exit the "TITLE PROGRAM" screen, press **RETURN** or ■**STOP**.

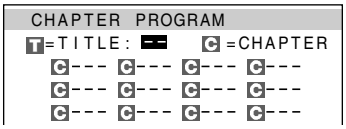


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DVD

Chapter Programmed Playback

1 Press **PROG** twice while the disc is stopped. (Press once for a title and twice for a chapter.)
- The “CHAPTER PROGRAM” screen appears.



2 First, use the number buttons (**0** to **9**) to specify the desired title number and then press ▶.

3 Use the number buttons (**0** to **9**) to enter the chapter number in --- and then press ▶. (The highlight moves to the right (next field).)
- If the entered chapter number does not exist on the disc, the number is ignored when ▶ is pressed.

(Example) Chapter 35 entered.

(C 35 C) → (C035 C---)

A zero (0) or double-zero (00) is automatically inserted before the first or second digit.

4 Repeat step 3 for each of the chapters that you want to play as part of the programme.
- If you enter three or more digits, only the last three digits are displayed.
- If you enter the wrong number, press ◀ and re-enter the number.

5 Press ▶**PLAY** to begin playing the programmed chapters. (Press this button while the “CHAPTER PROGRAM” screen is displayed.)
- PROGRAM indicator lights on the DVD Front Panel display.

6 Press ■**STOP** to stop programmed playback.



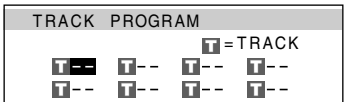
NOTE
- Up to 20 chapters can be programmed.
- To exit the “CHAPTER PROGRAM” screen, press **RETURN** or ■**STOP**.

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VIDEO CD C D

Track Programmed Playback

1 Press **PROG** while the disc is stopped.
- The “TRACK PROGRAM” screen appears.



2 Use the number buttons (**0** to **9**) to enter the track number in -- and then press ▶. (The highlight moves to the right (next field).)
- If the entered track number does not exist on the disc, the number is ignored when ▶ is pressed.

(Example) Track 7 entered.

(T 7 T) → (T 07 T--) A zero (0) is automatically inserted before the first digit.

3 Repeat step 2 for each of the tracks that you want to play as part of the programme.
- If you enter two or more digits, only the last two digits are displayed.
- If you enter the wrong number, press ◀ and re-enter the number.
- To exit the “TRACK PROGRAM” screen, press **RETURN** or **■STOP**.

4 Press **▶PLAY** to begin playing the programmed tracks. (Press this button while the “TRACK PROGRAM” screen is displayed.)
- PROGRAM indicator lights on the DVD Front Panel display.

5 Press **■STOP** to stop programmed playback.



NOTE
- Up to 20 tracks can be programmed.
- To exit the “TRACK PROGRAM” screen, press **RETURN** or **■ STOP**.

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Repeat Playback

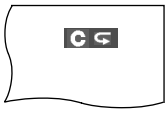
DVD

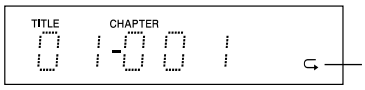
Chapter Repeat

Example: To repeat play the chapter you are currently viewing.

1 Play the chapter you want to repeat.

2 Press **REPEAT** and then press ▶**PLAY** to repeat the chapter play.





- Press **REPEAT** to turn off the "↻" indicator when returning to regular playback.

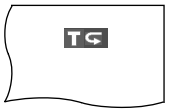
NOTE
- Repeat playback is disabled on some discs.
- On discs without chapters, this Unit repeats the current title.

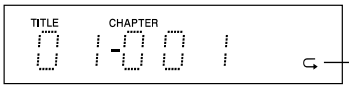
Title Repeat

Example: To repeat play the title you are currently viewing.

1 Play the title you want to repeat.

2 Press **REPEAT** twice and then press ▶**PLAY** to repeat the title play.





- The DVD Front Panel displays are the same as for chapter repeat playback.
- Press **REPEAT** to turn off the "↻" indicator when returning to regular playback.

NOTE
- Repeat playback is disabled on some discs.



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DVD C D

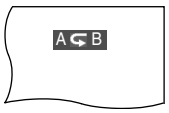
A-B Repeat

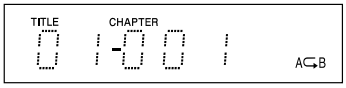
A-B repeat allows you to repeat a specified section on the disc.

1 Press **REPEAT** three times while a disc is playing.

2 While you are playing a disc, press ▶**PLAY** when you reach the start of the section to be repeated.

3 While the disc is playing the same title (same chapter/track), press ▶**PLAY** again when you reach the end of the section to be repeated.





- The A-B repeat begins from the point where you specified in step 1.
- Press **REPEAT** to turn off the "↻" indicator when returning to regular playback.

NOTE

- To cancel A-B repeat, press ■ **STOP**, **TITLE** or **DVD MENU**.
- A-B repeat can only be used within the same title/track. (On some DVD discs, A-B repeat is restricted to the same chapter.) If the start and end of the section to be repeated are in different titles/ chapters/tracks, A-B repeat is cancelled.
- If the DVD Front Panel display does not show the elapsed playback time while a disc is playing, A-B repeat playback cannot be used for that disc.
- The A-B repeat function does not operate in scenes where different camera angles are recorded.
- A-B repeat playback cannot be used for VIDEO CDs.



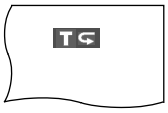
VIDEO C D C D

Track Repeat/Disc Repeat

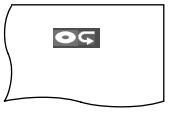
Example: To replay a track.

1 While a disc is playing, press **REPEAT** and then press ▶**PLAY**.

- The track currently playing is played repeatedly.



- To perform disc repeat playback, press **REPEAT** twice.



- Press **REPEAT** to turn off the "↻" indicator when returning to regular playback.

NOTE

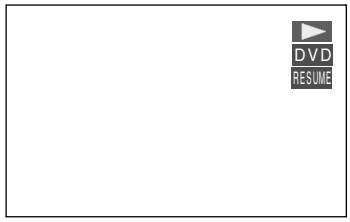
- The disc repeat function cannot be used on VIDEO CDs with PBC mode playback (most version 2.0 discs).
- Track repeat cannot be used on some VIDEO CDs or Audio CDs. Use the Programmed Playback function instead. (See page 96.)

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Resume Function DVD

This function enables you to resume the playback from the location you specify.

1 Press ■**STOP** at the desired point during playback.
- "RESUME" appears followed by "RESUME" on the screen.
- This Unit stores the location where you stopped.



2 Press ▶**PLAY** to restart play.
- Play resumes from a point slightly before the point where it was stopped.
- Press ▶**PLAY** to resume disc play, if auto-playback starts from the beginning of the disc when you reload the same disc after removing it.



NOTE
- The continued playback described here may not be possible on some discs (such as discs that automatically start playing when the disc tray closes).
- Resume playback is disabled on Audio CDs.
- After you press ■**STOP** to stop playback, you can press ■**STOP** again to resume playback from the beginning of the disc.

This resume operation does not work in the following cases.
- If you press ■**STOP** twice.
- If you press ■**STOP** during auto-playback.
- If you remove a disc and then load another one.

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Troubleshooting

The following problems do not always denote a broken this Unit. Perform the checks listed below before calling service.

■ VCR/DVD

Problem	Suggested Solution
• No power	• Is the power cord connected properly? • Is the power cord firmly plugged into the power outlet? • One of the safety mechanisms may be operating. In this event, unplug the Unit from the power outlet briefly and then plug it in again.
• The Remote does not work.	• Are the batteries loaded correctly? • Are the batteries flat? • Is the signal emitter on the Remote pointing at the Unit? • Is the Remote too far from the Unit, or is there any obstacle between the Remote and the Unit? • Did the **VCR/DVD CHANGE Switch** change correctly?
• No picture	• Did the **VCR/DVD SELECTOR** change correctly?
• DEW	• See page 2 for information (Condensation).

■ VCR

Problem	Suggested Solution
• VCR does not record.	• Cassette erasure protection tab has been removed. Use a different cassette or place adhesive tape over the tab opening. • Check if a cassette is loaded.
• Cassette is automatically ejected when pressing ●**REC** or **TIMER ON/OFF**.	• Cassette erasure protection tab has been removed. Use a different cassette or place adhesive tape over the tab opening.
• No colour or poor TV picture during normal viewing.	• Make sure all the cables are correctly connected. • Make sure the Unit power cord is properly plugged in. • Set the COLOUR MODE, NTSC MODE, and SYSTEM modes to match the broadcast system and TV.
• Snowy picture appears on TV during playback.	• Press **CH** ▲ / ▼ to adjust the tracking or try a different cassette. • The heads may be contaminated with condensed moisture or magnetic coating from the video tape. (If this is the case, the heads need to be cleaned. Ask the retailer or a Sharp approved service centre.) This Unit has a built-in full auto head cleaning mechanism, however, there are some environments in which head cleaning cannot be carried out completely.
• No tape movement.	• Make sure the Unit is not in pause/still mode. • Make sure the tape has not reached the beginning or end.
• Cannot receive NTSC (M) broadcasting.	• Make sure that the B/G, I, D/K, M (SYSTEM) setting is set to “M” when setting the channels.
• No picture appears or colour is not correct during playback.	• Make sure the TV is set to the same channel as the Unit radio frequency converter output channel adjuster (CHANNEL). • Check all connecting cables. • Set the COLOUR MODE, NTSC MODE, and SYSTEM modes to match the tape and TV.

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Problem	Suggested Solution
• Cassette cannot be loaded.	• Make sure there is no other cassette inside. • Make sure the cassette is correctly positioned and then reinsert.
• Picture does not change even though **CH** ▲ / ▼ are pressed.	• Make sure the Unit is not in the timer setting or clock setting mode.
• Selected programme position does not appear.	• The channel may have been set to be skipped. Cancel the skip setting for that channel.
• No colour appears during video search and the like.	• When a tape is recorded in the LP mode in the MESECAM system, the picture is discoloured during video search, still and similar modes. However, this does not indicate a malfunction.
• Picture is skewed.	• If a tape is recorded in the LP mode (regardless of whether it is a MESECAM or PAL tape), the picture is skewed during video search. However, this does not indicate a malfunction.
• NICAM sound cannot be output.	• Is NICAM set to OFF on the OSD mode?

■ DVD

Problem	Suggested Solution
• The Unit is switched on but does not operate.	• Have you loaded a disc? • Is the disc unplayable? (See pages 3 – 5.) • Is there dew in the Unit? (See page 2.)
• The playback image does not appear. • No sound is produced.	• Are the video and audio cables connected correctly? (See pages 14 – 17.) • Is the disc scratched? (See page 5.) • Is the disc dirty? (See page 5.) • Is the disc loaded upside down? • Is the input selector on the TV set to “VIDEO” or “AV”? • Is the audio equipment switched on and are all the components connected properly? (Refer to the operation manuals for your audio equipment.)
• The sound is not Dolby Digital (5ch or 5.1ch).	• Is the disc you are playing recorded in Dolby Digital (5ch or 5.1ch)? • Have you set the “ DIGITAL” in “AUDIO SETUP” to “BITSTREAM”? (See page 45.)
• The image and sound are garbled.	• Is the disc scratched? (See page 5.) • Are vibrations from the speakers affecting the Unit?
• The sound is not stable during playback.	• Set the “COMPRESSION” in “AUDIO SETUP” to “OFF” (See page 45.)

This unit is equipped with a microprocessor. Its performance could be adversely affected by external electrical noise or interference. If this should happen, unplug the Unit and plug it in again after a few minutes.

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Definition of Terms

■ VCR

Full Automatic Playback — This function automatically turns the power on and starts to playback when a tape with the erasure protection tabs removed is inserted.

Sharp Super Picture — Enhanced picture quality during playback.

S-VHS Simple Playback — This function facilitates S-VHS software playback. The original high picture quality of S-VHS (horizontal resolution of 400 lines) cannot be played.

Tracking Control — When noise appears on an image during tape playback, you can adjust the image quality to a suitable level so as to reduce the noise.

■ DVD

Angle — Recorded onto some DVD discs are scenes which have been simultaneously shot from a number of different angles (the same scene is shot from the front, from the left side, from the right side, etc,). With such discs, you can select the angle on Function Control Screen to view the scene from different angles.

Chapter Number — These numbers are recorded on DVD discs. A title is subdivided into many sections, each of which is numbered, and specific parts of video presentations can be searched quickly using these numbers.

Compression (Dolby Digital output level) — Setting that increases the average volume of Dolby Digital audio when playing a DVD.

Digital Gamma — Corrects for gradations in dark areas of images to make images clearer.

Digital Super Picture — Enhances the fine detail of the image and outlines of the objects it contains.

Dolby Digital (5.1 channel) — A sound system developed by Dolby Laboratories Inc. that gives movie theater ambience to audio output when the Unit is connected to a Dolby Digital 5.1 channel processor or amplifier.

Virtual Dolby (QSURROUND) — Provides rich surround sound by downmixing Dolby Digital 5.1 channel and Dolby Surround (Pro Logic) to 2-channel audio.

DTS — This is a digital sound system developed by Digital Theater Systems for use in cinemas. This system uses 6 audio channels and provides accurate sound field positioning and realistic acoustics. (By connecting a DTS Digital Surround decoder, you can also listen to DTS Digital Surround sound.)

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DVD

This refers to a high-density optical disc on which high-quality pictures and sound have been recorded by means of digital signals. Incorporating a new video compression technology (MPEG II) and high-density recording technology, DVD enables esthetically pleasing full-motion video to be recorded over long periods of time (for instance, a whole movie can be recorded).
DVD has a structure consisting of two 0.6 mm thin discs which are adhered to each other. Since the thinner the disc, the higher the density at which the information can be recorded, a DVD disc has a greater capacity than a single 1.2 mm thick disc. Since the two thin discs are adhered to each other, there is the potential to achieve double-sided play sometime in the future for even longer duration play.

Letter Box

4:3 LB

Screen size that cuts off the top and bottom of the image to allow playing of Wide (16:9) software on a connected 4:3 TV.

Linear PCM Sound

Linear PCM is a signal recording format used for audio CDs.
The sound on audio CDs is recorded at 44.1 kHz with 16 bits. (On DVD discs, sound is recorded at between 48 kHz with 16 bits and 96 kHz with 24 bits.)

Pan Scan

4:3 PS

Screen size that cuts off the sides of the image to allow playing of Wide (16:9) software on a connected 4:3 TV.

Pickup

Laser device that reads the data from a disc for playback.

Playback Control (PBC)

This is recorded on a VIDEO CD (version 2.0). The scenes or information to be viewed (or listened to) can be selected interactively with the TV monitor by looking at the menu shown on the TV monitor.

Region Number

Number identifying a geographic region of compatibility for a DVD.

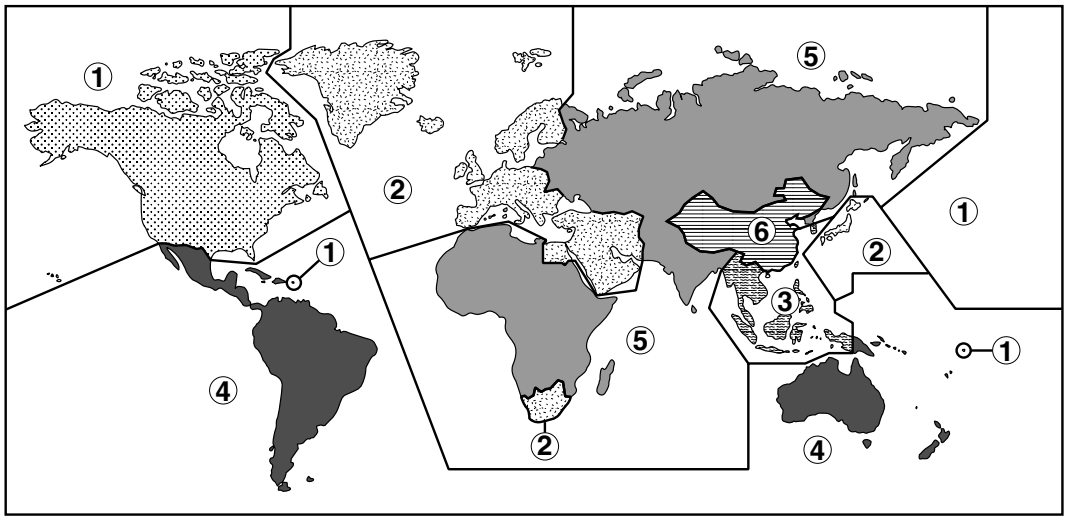
The list of the region number **3** countries

Common names	Names of Nations and Areas
Brunei Darussalam	Brunei Darussalam
Cambodia	Kingdom of Cambodia
Indonesia	Republic of Indonesia
Korea	Republic of Korea
Laos	Lao People's Democratic Republic
Malaysia	Malaysia
Myanmar	Union of Myanmar
Philippines	Republic of the Philippines
Singapore	Republic of Singapore
Thailand	Kingdom of Thailand
Viet Nam	Socialist Republic of Viet Nam
East Timor	*East Timor
Hong Kong	*Hong Kong
Macau	*Macau
Taiwan	*Taiwan

*Represents area name

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The world map for all region numbers



Subtitles These are the printed lines appearing at the bottom of the screen which translate or transcribe the dialogue. They are recorded on DVD discs.

Time Number This indicates the play time which has elapsed from the start of a disc or a title. It can be used to find a specific scene quickly. (It may not work with some discs.)

Title Menu This is a menu displayed by some DVDs for selection of chapters and subtitle set. The title menu is also called a “top menu”.

Title Number These numbers are recorded on DVD discs. When a disc contains two or more movies, these movies are numbered as title 1, title 2, etc.

Track Number These numbers are assigned to the tracks which are recorded on VIDEO CDs and audio CDs. They enable specific tracks to be located quickly.

VIDEO CD (VCD) This contains recordings of pictures and sound whose quality is on a par with that of videotape. This Unit also supports VIDEO CDs with playback control (version 2.0).

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Specifications

	Signal System	NTSC/PAL
INPUT/OUTPUT JACKS	DVD/VCR shared output jacks	VIDEO jack: RCA Pin-jack AUDIO jack: RCA Pin-jack
	DVD output jacks	VIDEO jack: S-Video jack AUDIO jack: RCA Pin-jack DIGITAL AUDIO IF: Coaxial digital AUDIO output jack: RCA Pin-jack
	VIDEO input jacks	VIDEO jack: RCA Pin-jack AUDIO jack: RCA Pin-jack
VCR	Video recording system	Two rotary head helical scan system, VHS, Hi-Fi
	Video signal	PAL: PAL System-B/G, I, D/K, M (Playback/Recording) SECAM: MESECAM System B/G, D/K, K1 (Playback/Recording) NTSC: NTSC4.43 (Playback/Recording) NTSC: NTSC System M (NTSC 3.58) (Playback/Recording)
	Recording/playing time	720 minutes max. with E-240 tape (PAL) 480 minutes max. with T-160 tape (NTSC)
	Tape width	12.7mm
	Tape speed (PAL)	(SP) 23.39mm/sec (LP) 11.70mm/sec (EP) 7.80mm/sec
	(MESECAM)	(SP) 23.39mm/sec (LP) 11.70mm/sec
	(NTSC)	(SP) 33.35mm/sec (LP) 16.67mm/sec (Playback only) (EP) 11.12mm/sec
	Antenna	75 ohm unbalanced
	Receiving channel	VHF: 1A–E12 (C1–C12), UHF: E21–E69 (C13–C57), European CATV: S1–S41 VHF: US AIR 2–13, UHF: US AIR 14–79, CATV: 2 to W+84 VHF: JAPAN 1–12 UHF: JAPAN 13–62
	NICAM format	NICAM-I, B/G, D/K
	IGR stereo format	IGR-B/G, D/K
	RF converter output signal	E21–E69 (adjustable), US AIR 26–38 (adjustable), JAPAN 25–37 (adjustable).
DVD	DVD/VCR shared Video output	Output level: 1 Vp-p (75Ω)
	S video output	Y output level: 1 Vp-p (75Ω) C output level: 0.3 Vp-p (75Ω)
	Audio output	Output level: 2 Vrms (1 kHz, 0 dB)
	Video signal horizontal resolution	500 lines
	S/N ratio	60 dB
	Audio signal frequency characteristics	For DVD linear PCM playback: 4 Hz to 22 kHz (48 kHz sampling) 4 Hz to 44 kHz (96 kHz sampling) CD playback: 4 Hz to 20 kHz (JEITA)
	S/N ratio	CD: 96 dB, 1 kHz (JEITA)
	Dynamic range	DVD linear PCM: 96 dB (JEITA) CD: 96 dB (JEITA)
	Total harmonic distortion ratio	CD: 0.006% (JEITA)
	Pickup	Wave length: 650 nm (DVD) / 780nm (CD) Laser output: Max. 0.7 mW
	Operating temperature	5°C to 35°C
	Storage temperature	–20°C to 55°C
	Power supply	110V to 240V AC, 50/60 Hz
	Power consumption	29 W
	Dimensions	430 mm × 99 mm × 363 mm (W × H × D)
	Weight	6.0 kg

Specifications are subject to change without notice.
Weight and dimensions are approximate.

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